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THE PLANTERS' CHRONICLE.

VOL. II.

FEBRUARY 1907—JANUARY 1908.

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The Planters' Chronicle.

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VOL. II. No. 1.]

FEBRUARY, 1907.

[PRICE AS. 2.

THE U. P. A. S. I.

(INCORPORATED.)

Of the circulars issued to Councillors during January, 1907, the first related to

The Central Agricultural Committee

and called attention to a statement of the financial position of the Committee and the call made for payment of subscriptions according to a new scale.

Ceylon Import Duty on Tea.

Copies of the following correspondence were received from the Secretary, Indian Tea Association, Calcutta, and circulated :—

Letter from the Secretary, Indian Tea Association, to the Secretary to the Government of India, Department of Commerce and Industry, Simla, dated Calcutta, 28th June, 1906.

I am directed by the General Committee of the Indian Tea Association to invite the attention of the Government of India to previous correspondence on the subject of the Import Duty levied on Indian teas in Ceylon, ending with your letter No. 6647-75-6, dated 5th October, 1905.

2. The subject was first brought to the notice of the Government of India by the Association in November 1901 and has been reverted to on several occasions since then. It has recently been brought prominently to public notice by a question addressed in the House of Commons on the 28th March to the Under-Secretary of State for the Colonies as to whether he could hold out any prospect of the abolition of the duty. As a result of the question, Lord Elgin addressed a despatch to the Government of Ceylon, and enquired whether the Government "remains of the same opinion as a year ago and still considers that the present restriction should not be relaxed, or whether the conditions of the case have been altered in any way." Lord Elgin remarked that "it is a matter on which local opinion must prevail, no Imperial interest being involved; but the present policy seems to be of somewhat doubtful value, and you may be of opinion that the time has come to reconsider it." In forwarding a copy of the despatch to the Ceylon Planters' Association, His Excellency the Governor remarked that although he considered the planters were justified in wishing to ensure that no tea other than that grown in Ceylon is exported from the Colony as pure Ceylon tea, it was worthy of the consideration of the tea producers whether that object "could not be secured without prohibiting the blending of tea in Colombo in bond." "Colombo," His Excellency observed, "is the natural centre of the world for tea blending, and if precaution be taken that all tea leaving the bonded stores is marked as blended tea in an unmistakable manner, it is not clear how the Ceylon grower can be injured."

3. It will thus be seen that the Government of Ceylon themselves are by no means convinced of either the necessity or the desirability of maintaining the present rate of duty. Unfortunately, however, their representation met with no success, for the Association, after consideration of the matter, wrote :— "The subject has been before the Planters' Association and the Chamber of Commerce, many times during the last few years. The majority of both bodies are of the opinion that the advantage to be gained by allowing the blending of all teas in Colombo is problematical and the possibility of damage to the producers interests probable." No reasons whatever were assigned for the

adoption of this arbitrary attitude. Under the existing conditions Ceylon tea is able to compete successfully with Indian teas in Indian markets, whereas the prohibitive duty on tea imported into Ceylon effectually stifles any possible trade in Indian tea. The following statement shows the imports of Ceylon tea into India during the past three years :—

IMPORTS OF CEYLON TEA INTO INDIA.

	1903.	1904.	1905.
	lbs.	lbs.	lbs.
Black tea ...	461,084	918,719	1,974,500
Green tea ...	8,475	8,070	42,501
	<hr/> 469,559	<hr/> 921,789	<hr/> 2,107,001

4. In view of the fact that the repeated representations of the Government of India to the Government of Ceylon have had no effect, the General Committee now most respectfully urge that the matter be referred to the Secretary of State for India with a view to its being taken up with the Secretary of State for the Colonies. This might be done on the ground that anything in the shape of a protective policy is absolutely opposed to the avowed policy of the present Government. Being a Crown Colony the Government of Ceylon are doubtless amenable to the Home Government in questions affecting fiscal policy, and the Government of Ceylon although at present unwilling to do anything contrary to the expressed wishes of the local tea industry may feel it incumbent upon them to abolish the duty on their own initiative. The General Committee trust that their suggestion will commend itself to the Government of India and that the matter will be taken up at the earliest possible moment.

Letter from M. M. S. Gubbay, Esq., I.C.S.,

Offg. Under Secretary to the Government of India,

Department of Commerce and Industry.

To the Secretary, Indian Tea Association, dated Simla, the 3rd July 1905 :—

I am directed to acknowledge the receipt of your letter No. 882-0, dated the 28th June 1906, in which you suggest that the question of the import duty levied on Indian teas in Ceylon should be referred to the Right Hon'ble the Secretary of State for India with a view to its being taken up with the Right Hon'ble the Secretary of State for the Colonies. I am to say that your letter will be submitted for the consideration of the Government of India.

Letter from, M. M. S. Gubbay, Esq., I. C. S.,

Offg. Under Secretary to the Government of India.

Department of Commerce and Industry.

To the Secretary, Indian Tea Association, dated Simla, the 14th August 1906 :

In continuation of my letter No. 5180-165, dated the 3rd July 1906, I am directed to say that the Right Honourable the Secretary of State has been addressed on the subject of your representation and that a further communication will be made to you, on receipt of his reply.

Letter from M. M. S. Gubbay, Esq., I. C. S.,

Offg. Under Secretary to the Government of India,

Department of Commerce and Industry.

To the Secretary, Indian Tea Association, dated Calcutta, the 4th Dec. 1906 :

In continuation of the correspondence ending with my letter No. 8872-165, dated the 14th August 1906, I am directed to say that the Right Hon'ble the Secretary of State for the Colonies considers that, in view of the correspondence which was referred to in paragraphs 2 and 8 of your letter No. 882-0, dated the 28th June 1906, the question of removing the restrictions on the import of Indian tea into Ceylon cannot conveniently be reopened at present.

Adulteration of Coffee.

Writing on the 19th December 1906, Mr. John C. Sanderson said:—

"I confirm my letter of 14th instant and have now the pleasure to hand a letter I have received from the Secretary of the London Chamber of Commerce, relative to the Resolution passed by the Coffee and Cocoa Section, which has been confirmed by the Council of the Chamber, of which please take note.

P. S.—This morning I have a letter from Mr. Rees, telling me he has put down two questions to be asked by him in Parliament on Monday next. He will no doubt let you know the result."

(INCLOSURE)

Letter from Secretary, London Chamber of Commerce, to Secretary U. P. A. S. I., dated 17th December 1906.

"I have the pleasure to append for your information copy of a resolution passed by the Coffee and Cocoa Trade Section of this Chamber which was unanimously confirmed by the Council at its last meeting and to invite your Association's observations thereon.

Coffee and Cocoa Trade Section, December 6th, 1906.

Consumption of Coffee: That the Coffee and Cocoa Trades Section, having considered the reference from the Council as to "the progressive decline in the consumption of coffee in this country, and how far this decrease is due to the practically unchecked use of chicory," is of opinion that inasmuch as the quantity of chicory entered for home consumption is decreasing in a larger ratio than coffee, it does not appear that the unchecked use of chicory has had the action attributed to it. The Section suggest that planters should bring coffee as a beverage more actively to the notice of the British public by extensive advertising, as is done in the case of tea and cocoa; and the members would assure the planters that where chicory exceeds in quantity the coffee in a mixture, such mixture is described on the label as "Chicory and Coffee" in characters of equal size."

Owing to the kindness of Mr. Stuart R. Cope, of the Anti-Tea-Duty League,, the Secretary was able to supplement the above by giving the questions put by Mr. J. D. Rees in the House of Commons on the 20th ultimo, with Mr. Asquith's reply.—

QUESTION ASKED IN PARLIAMENT, DECEMBER 20, 1906.

ADULTERATION OF COFFEE.

Mr. Rees asked the Chancellor of the Exchequer whether he was aware that the export trade in coffee and the duty collected on coffee had largely declined; that the General Committee of the London Chamber of Commerce had recorded a resolution to the effect that the requirements of the present Food and Drugs Act, in reference to forms of label were not sufficient for the protection of the public; and that the law as to admixture and the declaration to the purchaser needed to be greatly strengthened in the interest of the retail seller and the consumer of coffee; and whether he would introduce legislation requiring the use of a label specifying the proportions of coffee and of inferior substances in every admixture offered for sale as coffee.

The Hon. Member also asked the Right Hon. gentleman whether he was aware that the consumption of coffee had largely decreased; that the admixtures sold by retail tradesmen as coffee contained from 70 to 90 per cent of chicory; that the value of this weed per pound was 8d. to 3½d., as against 1s. 0½d. per pound for the berry, and whether he would propose legislation at an early date for the protection of coffee, coffee planters and coffee consumers.

THE CHANCELLOR OF THE EXCHEQUER.—I do not know quite what my hon. friend means by the export trade in coffee. As regards the Customs import duties, I do not trace any systematic decline, and the figures for 1906, so far as they are available, do not appear to be appreciably below the average of the past ten years. I have not seen the resolution of the general committee

of the London Chamber of Commerce on this subject, but the question of the protection of the consumer against food adulteration is not one with which it is my duty as Chancellor of the Exchequer to deal. The Inland Revenue labels are merely stamps denoting uniform rates of duty, irrespective of the quality of the mixtures to which they are affixed. I do not know what is the relative proportion of coffee and chicory in the admixtures sold by retail tradesmen, and, so long as the duties upon the two ingredients are practically equal, the matter does not directly concern the Exchequer. From the point of view of the revenue, I see no reason for introducing taxation.

The Indian Tea Cess Committee.

Mr. George Romilly was unable to attend the meeting of this Committee in January and as he is going home for six months in July next, he has resigned his seat. Steps are being taken to elect a successor, whose name will, in due course, be submitted for the approval of the Government of India.

Remission of Assessment.

On the last day of the month the Secretary received the following proceedings of the Madras Government, No. 181, Revenue, dated the 28th January 1907:

RUBBER.

Sanctioning the remission of rent for 3 years on the lands cultivated with ——— on the Anamalais.

C. O., No. 181, Revenue, dated 28th January 1907.

Read the following papers:—

C. O., No. 1176, dated 4th December 1905.

From the Secretaries, Southern India Rubber Company, dated 11th September 1906.

From the Secretary, United Planters' Association of Southern India, dated 11th October 1906.

ORDER.

The Government are pleased to direct that the assessment due in accordance with the terms of the agreements under which lands have been granted on the Anamalais shall be remitted for a maximum period of three years in respect of such portions of the leased areas as may hereafter be newly planted with rubber, the remission to take effect for three complete consecutive years from the date of such planting.

2. This remission is granted purely as a matter of grace, and it shall not in any way affect, modify or prejudice any of the provision of the agreements to lease, or leases granted in pursuance of such agreements. The Government further reserve to themselves liberty to cancel or alter the concession at any time for any reason or without assigning any reason.

Notice.

To facilitate reference in the future it has been decided to close Volume I. of *The Planters' Chronicle* with the January number (the contents of which relate to the last month of the year 1906) and to begin a fresh volume with the February issue. The first volume consists of only five monthly numbers; succeeding volumes will comprise twelve.

An index to the first five issues is published herewith. Subscribers can, if they desire, return their September-January copies, with index, to be bound. The charge for binding will be

Rs.1 per copy, including postage.

A few bound volumes (hitherto unissued copies) will also be available at the *Chronicle* office. Price Rs.1-12 each, per V. P. P.

MEETINGS OF DISTRICT ASSOCIATIONS.

Wynaad Planters' Association.

Meeting of November 7th, 1906,* at Meppadi Club.

PRESENT:—Messrs. Armstrong, Atzenwiler, Behr, Davidson, Day, Mackinlay, Malcolm, Nicols, Parry, Powell, Trollope, Waddington, West and C. E. Abbott, Honorary Secretary.

Mr. Waddington in the Chair.

1. *Proceedings of last Meeting* were confirmed.

2. *Proportion of Coolies under contract*.—Read Honorary Secretary's letter to the Collector of Malabar, Collector's telegram and Honorary Secretary's reply.

From the figures sent, it would appear that not more than 8 per cent. of the coolies are under contract.

3. *Motor Car Service*.—Read letter from the Post-Master General, Madras, in reply to Honorary Secretary, saying that the question had been referred to the Divisional Superintendent of Post Offices, Calicut.

4. *Timber on Darkhast land*.—This matter was referred to at the last Meeting. The Honorary Secretary was instructed to address the Board of Revenue through the Collector of Malabar asking that steps should be taken to expedite the settlement of Mr. Day's application, which has now been pending nearly 2 years.

5. *Sick Coolies on Road*.—Read letter from Honorary Secretary, and reply from Collector of Malabar enclosing a letter from the Collector of Nilgiris and a report from the Deputy Tahsildar of Ootacamund.

No cases appear to have occurred since July. It is hoped that if any further cases do occur, the authorities will report the same to the Association, as requested by the Honorary Secretary in his letter of September 20th, 1906. The Collector of Malabar was thanked for the information given.

6. *Roads*.—A special grant of Rs.7,000 has been given by the District Board for the Sultan's Battery-Noolpoya Road, and Rs.3,000 for the Chundale-Chudadi Road. These sums are to be spent at once on metal collection and spreading. As regards next season's work, it is understood that the details of the metal collection in Wynaad generally will be settled before the end of December, so that this work can be begun in January and completed before the end of March.

Recorded with much satisfaction.

7. *Vote of a deceased Member*.—Mr. Day proposed that as Superintendent of Nellanoor and Nodapard estates, which paid the late Mr. Lance's subscription for 1906, he may be allowed to vote for Mr. Lance (who died last July) until the end of the year for which the subscription is paid.

Seconded by Mr. Nicolls.

This was lost; 3 voting for the proposal and 10 against.

Printing Speeches.—Proposed by Mr. Malcolm, that any member speaking on any subject that comes up for discussion at the Meetings of the Association may, on the condition that what he says has been put in writing, be entitled to have such matter recorded and printed with the Proceedings of the Meeting on condition that the subject matter contains nothing libellous or personal in the opinion of the Meeting or otherwise objectionable.

Seconded by Mr. Day.

Amendment proposed by Mr. Abbott: that the above be not agreed to, but that Rule 13 have the words printed in italics added to it, so as to read "Copies of all resolutions, correspondence and proceedings shall be kept and shall be

* [Inadvertently omitted from an earlier issue of the P. C.]

printed and circulated amongst the Members of the Association at the discretion of the Honorary Secretary, *subject to any special instructions that may be given at the Meeting.*"

Seconded by Mr. Mackinlay.

The amendment was carried by 10 to 8.

9. *Mysore Police.*—Read letter dated October 17th from Officiating Inspector General of Police, Mysore, enclosing copy of letter from the Superintendent of Police, Mysore District. Recorded.

10. *U. P. A. S. I. Circulars.*—These were read, and instructions were given to Honorary Secretary.

The acreage to be assessed under Rule 1 (b) of the U. P. A. S. I. in Wynaad is 7,400.

11. *Pepper Disease and Statistics.*—Referring to letter written by Mr. Malcolm in September 1902, Mr. Barber has asked us to revise up to date the information then given.

The subjects he wishes for information on are the acreage under pepper crops, total exports from Malabar, and the progress of disease.

Before replying, the Honorary Secretary would be obliged to any members who will give their views to him on these subjects. Mr. Barber does not require the information for publication.

Vote of thanks to the Chair.

(Signed) H. WADDINGTON,

Chairman.

C. E. ABBOTT,

Honorary Secretary.

Note.—The next meeting will be the Annual General Meeting to be held in January.

2nd—The Board of Revenue has some Wild Abyssinian Coffee which it is prepared to distribute to Planters for experiment. Planters receiving it will be asked to report the results.

3rd—Mr. Day has given notice that he intends to move the following resolution at the Annual General Meeting :

"That the following rules shall replace those now existing relating to membership of the Association :

"(a). All Companies, Syndicates and Proprietors owning property in Wynaad shall be eligible for election as members of the Association, and on election shall be entitled to a maximum of one vote for every 250 acres of cultivated land, owned, on payment of an annual subscription, *pro rata*, at a rate to be fixed by the Association. Companies, Syndicates or Proprietors owning collectively less than 250 cultivated acres, to be entitled to one vote. Company or proprietary votes lapse with the sale of the property and shall not be transferable with the transfer of the property.

"(b). All Managers, Superintendents and Assistants employed in the district and drawing a fixed salary of not less than Rs.150 per mensem excluding bonuses, commissions and allowances shall be eligible for personal election as members of the Association, on payment of an annual subscription to be fixed by the Association, and shall be entitled to one vote. Any Manager or Superintendent in receipt of a fixed salary of Rs.500 or more per mensem, shall be entitled to two personal votes on payment of a double subscription. Personal votes shall lapse on the final departure of a member from the district, or shall be suspended until his return if he is absent from the district for more than one year."

Wynaad Planters' Association.

Annual General Meeting at Meppadi Club, January 9th, 1907.

PRESENT:—Messrs Atzenwiler, Armstrong, Behr, Davidson, Day, Mackinlay, Malcolm, Powell, Trollope, Waddington and C. E. Abbott, Hony. Secretary.

Mr. Waddington in the chair.

The Proceedings of last Meeting were confirmed. (It was noted that they had not been published in the *Planters' Chronicle*.)

Timber Valuation on Darkhast land.—Read Hony. Secretary's letter to the Collector of Malabar and the Collector's reply, stating that the question of tree valuation in the Wynaad Taluq is before the Board of Revenue for revision, and that early orders are expected.

Annual Report and Statement of Accounts.—Mr. Abbott read the following report:—

Annual Report for 1906.

Nine General Meetings have been held during the past year. The accounts are laid on the table for examination. All the subscriptions except one have been paid up.

Three new Members have been elected. We have had to record with much regret the death of two of our number. A third name on the roll will disappear owing to the failure of Messrs. Arbuthnot and Co. From a Planters' point of view the loss is a very serious one. The late Firm were large estate owners in Wynaad and elsewhere, and have helped many Planters who were in difficulties. They were most considerate employers, and to the Planting Community their extinction is an unmixed misfortune. We have now 34 subscribers.

Crops.—There has been a marked improvement in tea prices, and the outlook for this product is very promising.

I remarked 2 years ago that thefts of tea appeared to be worked on a regular system. In conversation with Planters from other Districts, I have heard the same complaint. The evil has got beyond petty pilfering. Tea is being sold in many of our large towns at prices that defy competition on the part of the Producer. The extraordinarily low range of prices in the Calcutta market in the first half of the year has been put forward as an explanation. While this has been true in the past the whole matter ought to be carefully watched. Convictions have been obtained against factory coolies but no receivers have been brought to justice.

Coffee crops are small this season, and prices continue low. Pepper keeps at a remunerative figure, and if there is no serious return of disease, the prospect is hopeful.

Roads.—We commenced the year by a correspondence with Mr. Knapp, the Collector of Malabar and President of the District Board, who asked us to state our views as to the standard of road upkeep at which the Association thought the District Board ought to aim. We replied that while we quite admitted that the District Board gave us all the money it could spare, we asked that it might be spent at the proper time; and further that we considered Government ought to assist the District Board with funds as it does in other Planting Districts; in fact, that generally speaking Malabar-Wynaad roads ought to be kept in as good order as Nilgiri-Wynaad roads. Mr. Knapp did not endorse our recommendations, Government declined to grant any more money for Wynaad roads, and during the Monsoon some of them fell into a very bad state.

Since then a great deal of good work has been done, and arrangements have been made for next season's work which make us hopeful for the future.

The Public Works Department has continued in charge of the Calicut-Mysore Road, which has been maintained in excellent order. Government has also

provided money for the Vellera Mulla Road, and has promised a further contribution.

The District Board is to have a Provincial Grant of Rs.70,000, of which the Wynaad will get a share.

This is a matter on which we ask merely to be treated as other Planting Districts. The Collectors of the Nilgiris, Salem, Coimbatore or the Deputy Commissioner of Coorg would be extremely surprised if they were expected to keep up the roads in their Planting Districts out of the small proportion of their revenue that is allotted to local funds. But Malabar has for some reason always been treated less liberally.

There seems to be a dawn of better things. We must do what we can to keep the dawn going.

Labour Law.—The course of events has been as follows:—

At our last Annual Meeting in January 1905 we asked that Act I. of 1903 might be withdrawn from Wynaad unless it was amended by February. This was carried against a proposal to ask Government to withdraw the Act unless it was amended by September. Government in reply declined to withdraw the Act but promised to amend it in the desired direction, with one important exception; it declines to provide for specific performance of contracts. The whole object of the agitation which led to the Act being passed was to enforce specific performance, which simply means that a Maistry should be obliged to bring the coolies he had taken an advance for on to the estate and make them work there for the period of his contract. I was instructed to do all I could at the U. P. A. S. I. Meeting to get the Act withdrawn. My resolution was defeated in favour of one brought forward by Mr. Brock, Hon. Secretary of the Nilgiri Association, asking for further amendments. It was thought that as some Planters in the Nilgiris considered the Act capable of being altered into a useful one, it would be unwise for the Central Association to condemn it entirely. No fresh District has applied to have the Act introduced nor does any intend to; the only one threatened has vigorously protested. Nobody pretends to approve of the Act as it stands, and the Madras Government appears disinclined to bring it up for discussion in the Legislative Council so as to pass even the insufficient amendments it has promised. As for the further amendments that the U. P. A. S. I. asked for on Mr. Brock's initiative, absolutely no notice has been taken of the request.

Postal Matters.—The Director-General of Post Offices has again refused to consider the question of reducing the Commission on money orders. The Post Office prefers to carry the actual rupees across India at its own risk and to deliver them at our doors, charging us about half as much for this service as it does for a money order of the same amount which would merely necessitate an order on the local treasury. We may record the figures once more, and leave the subject for the present:

To send Rs.400 by Money Order costs Rs.4.

To send Rs.400 by insured parcel post costs Rs.2-2.

Motor Car Service.—There seemed to be a chance of establishing a motor car service between Calicut and Meppadi; and we asked the Post-Master General to support it. But he wants to see the service working before promising to use it for the Mails. My own impression is, that merely as a passenger and parcel service it would pay well enough. But the capital required to start it is considerable, and a guarantee from the Post-Office of even Rs.200 a month (which is about what the present service of runners costs) would be an inducement to start it. The Government of India, in reply to a resolution of the U. P. A. S. I. Meeting, has stated that there is little prospect of any of the railways asked for in planting districts being constructed for many years. The only improvement the present generation of planters is likely to see made in our means of communication will be by some such service as is suggested.

Scientific Officer.—The proposal to appoint a scientist who would devote all his time to planting matters was discussed at Bangalore, and at our September Meeting. Mr. Brock has since issued a Circular to the Members of the Nilgiri Association asking for support. I wrote to him last month asking what response he had received, but have had no reply.

Messrs. Parry and Co. have promised to contribute Rs.50 a year, and at Mr. Davidson's request, I have put the subject down on the agenda of this Meeting.

The cost would roughly be

Salary	Rs.7,200 a year.
Travelling	Rs.1,800 do
Passage from England	Rs.600
Laboratory	Rs.10,000

The U. P. A. S. I. would have contributed Rs.5,000 to start the scheme, but the total loss of its funds has of course rendered this impossible.

We would therefore have to face an initial expenditure of about Rs.20,000 and an annual one of Rs.10,000. If Planters in Southern India will guarantee half the amount for five years, it seems probable that the Governments of Madras and Mysore would contribute as do the Governments of India and Bengal to the Indian Tea Associations Expert.

Messrs. Finlay Muir employ a scientist for their own estates, so the Kanan Devan Planters could not be expected to contribute.

The principal objection to the scheme that has been made when I have approached Members on the subject has been that whereas Mr. Mann has only one product—tea—to look after, the Southern Indian scientist would have half a dozen.

"*The Madras Mail.*"—We have heard with regret that Mr. Beauchamp has been obliged through ill-health to resign his position as Editor, and is leaving India. Planters have much to be grateful for to the "*Mail*" and its Editor. We must hope that the change to Europe will be of benefit to Mr. Beauchamp.

I have now to ask you to pass the accounts if they are found to be in order, and to accept my resignation. During the 8 years that I have been your Hony. Secretary, our discussions have been rather overshadowed by the Labour Law, which has perhaps obscured the fact that we have been able to do some useful work in other directions. I have to thank all Members for their assistance in the performance of my duties.

C. E. ABBOTT,

Hony. Secretary.

The report was ordered to be printed with the proceedings. The accounts for the year were passed and were ordered to be printed separately.

Mr. Day's Resolution.—Mr. Day withdrew his proposed resolution which has been printed with the last proceedings.

Proposed by Mr. Waddington, seconded by Mr. Trollope and carried, that Rule 5 be altered by the addition of the words printed in italics, so as to read

"Any gentleman, *Company, partnership or syndicate* wishing to join the Association must be proposed and seconded by members at a General Meeting, and elected by vote of the majority of those present, provided that the Hony. Secretary has given ten days' notice to members of the candidate's name." This alteration regularises the membership of Firms and Companies who were elected previous to the rules being passed in June 1904 as well as similar elections in future.

Scientific Officer.—It was noted that Messrs. Parry & Co. had offered to subscribe to this object.

Resolved that if other Districts support the scheme, the Members of this Association are willing to contribute.

Honorary Secretary.—Mr. Waddington was elected Honorary Secretary and will take up the work at next Meeting on February 6th. A very cordial vote of thanks was passed to Mr. Abbott for his services during the past 8 years.

A vote of thanks to the chair terminated the proceedings.

(Signed) H. WADDINGTON, *Chairman.*

(„) C. E. ABBOTT, *Hony. Secy,*

Shevaroy Planters' Association.

Proceedings of a Committee Meeting held in the Victoria Rooms, Yercaud, January 7th, 1907.

PRESENT :—Messrs. C. G. Lechler, F. D. Short, C. Rahm, J. C. Large and W. I. Lechler, *Chairman and Hony. Secretary.*

1 Read letter dated 6th inst. from Mr. G. Turner regretting his inability to attend the meeting owing to press of business and offering to resign his place on the Committee.

Resolved that Mr. Turner be informed that the Committee regret the circumstances which prevent his attendance and beg him not to think of resigning.

2 Read and recorded letter dated 18th ultimo from Mr. G. Turner and the Hony. Secretary's reply thereto, *re* official interference with his coolies at Tullasholay village.

3 Read and recorded letter dated 3rd inst. from Mr. J. C. Large, Manager of the Preaux Verts Co., Ltd., intimating the resignation on the part of the company of its membership of the Association.

4 Read and recorded letter dated 25th December from the Superintendent of Police, Salem, informing the Association that due attention will be paid to their complaint *re* breach of Section 11 of the Coffee Stealing Act by cartmen.

5 Read letter dated 1st inst. from Mr. F. D. Short, complaining of the inadequate accommodation at the Sub-Magistrate's Court, Yercaud, for the transaction of business.

Resolved that the Hony. Secretary be requested to bring the matter to the notice of the Collector and District Magistrate of Salem, pointing out the necessity for a larger building and one more suitable to the wants of a Planting district.

6 Read and recorded notice of sale of coffee lands attached for arrears of land revenue.

7 Read and recorded letter No. 420 dated 17th December from the District Forest Officer of Salem, forwarding copy of notice with map, stating that portions of Arasankad and Vaniar Reserves will be open to bamboo extraction to the Shevaroy Planters and other residents of the Shevaroy plateau only.

8 Read and recorded the following U. P. A. S. I. Circulars:

Nos. 76, 77, 78, 79, 80, 81, of 1906 and Nos. 1, 2, 8, of 1907.

The following papers were laid on the table:—

Proceedings of South Mysore P. A., December 8rd.

Agricultural Ledgers, 3, 4, 5, 6, of 1906.

Tea Circulars.

The Chairman and Hony. Secretary announced his impending departure to England and asked the Committee to make arrangements for the conduct of the business of the Association during his absence.

(Signed) W. I. LECHLER,
Chairman and Hony. Secretary.

An official report from Jamaica states:—

In some alluvial soils cocoa trees begin to die off when they are, say, four or five years old, and the only apparent reason is that the tap roots at that age pass through a band of sand or gravel. It is suggested that to save trees which represent the expenditure of a considerable amount of capital they might have their tap roots removed. In order to test whether such mutilation will affect the health or productive capacity of the tree, one of the older trees had its tap root sawn off during the year, and so far does not seem to suffer in any way.

PLANTERS' ASSOCIATION OF CEYLON.**Committee Meeting.**

Extract from Minutes of proceedings of a meeting of the Committee of the Planters' Association of Ceylon, held at the Victoria Commemoration Buildings, Kandy, on Friday, the 11th January 1907, at 8 p. m.

PEST ORDINANCE.

Informed the Committee that the above Ordinance was passing through a sub-Committee of the Legislative Council and on being gazetted would be brought before this Committee.

THIRTY COMMITTEE—NOMINATION OF MEMBERS FOR 1907.

After lists had been circulated and scrutinised, it was resolved that the following names be submitted as the "Thirty Committee" for the year 1907. Messrs. G. C. Bliss, J. G. Sinclair, J. B. Coles, N. W. Davies, Wm. Forsythe, R. H. Eliot, Wm. Sinclair, Keith Rollo, R. A. Galton, W. D. Gibbon, Hon. Mr. J. N. Campbell, H. O. Hoseason, Geo. Greig, David Kerr, Jas. R. Martin, R. Morison, J. S. Patterson, Joseph Fraser, W. S. T. Saunders, Frank S. Vowler, W. L. Strachan, E. Turner, Alex. Wardrop, James Westland.

The "Thirty Committee."

Extract from Minutes of proceedings of a Meeting of the "Thirty Committee" appointed to administer the proceeds of the Export Duty on Tea levied under Ordinance No. 4 of 1894 for increasing the consumption of Ceylon Tea in Foreign Lands, held at the Victoria Commemoration Buildings, Kandy, on Saturday, the 12th January 1907, at 7-30 a.m.

RESOLVED :—That a Motion be brought forward at the General Meeting in February protesting against the Secretary of State's Despatch in which he instructs the Ceylon Government to repeal Ordinance No. 4 of 1894.

CEYLON ASSOCIATION IN LONDON.

Read Correspondence re supporting the Anti-Tea-Duty League.

Intimated that the Cess having been reduced to 20 cents per 100 lbs. from 1st January 1907, no funds were available.

Submitted Correspondance with the Ceylon Association in London.

INDIAN TEA CESS COMMITTEE.

Submitted correspondence with the Indian Tea Cess Committee and intimated that they had been advised that the "Thirty Committee" were prepared to continue the Joint Campaign to the end of 1907.

INDIAN TEA CESS COMMITTEE.

The half yearly meeting of the Indian Tea Cess Committee was held at the Bengal Chamber of Commerce on Tuesday, January 29th, Mr. W. Brown, the Chairman, presided.

The estimates of receipts and expenditure for the year ending 31st March 1907, were considered, as were also proposals for the expenditure of next year's funds. It was resolved, after discussion, to continue the existing arrangement for advertising in the United States, jointly with Ceylon; and a sum equivalent to four-sevenths of £12,000 the total to be contributed by the two countries was voted for this purpose. The Committee also decided to maintain the separate Indian Advertising Fund, which they started in the United States during 1905, and to allot to it a further sum of £4,000. To maintain the scheme which has been initiated for advertising in Belgium and Germany they voted £1,500, and they also sanctioned a grant of £3,000 to a second scheme for developing the markets of Continental Europe. They likewise agreed to continue the green tea bonus at the rate of six pices per pound on two million pounds of green tea to be manufactured during the coming season. The arrangements for the payment of the bonus were left in the hands of the Executive Committee. With the object of promoting the consumption of tea in India, the Committee set aside Rs.80,000, leaving the Executive Committee to devise a scheme of work. They also allotted Rs.5,000 to be spent at the discretion of the Executive Committee in aiding the trade in Indian tea with Tibet.

TEA.

The Shot-Hole-Borer—*Xyleborus Fornicatus*.

Mr. E. Ernest Green, Government Entomologist, Ceylon, contributes the following article to the November issue of the organ of the Ceylon Agricultural Society:—

'Shot-hole borer (*Xyleborus fornicatus*) remains a serious matter of consideration with tea planters,—more particularly within a radius of ten miles around Kandy. The question is being complicated by the occurrence of wound-fungi invading the galleries of the borer, and the attacks of white ants (termites) upon the fungus-infested tissues. I have reports from certain estates that, owing to the combination of these three evils, the bushes are steadily deteriorating, and there is a

GENERAL CRY FOR A RADICAL CURE.

I may say at once that I can offer little hope of such a cure. Though nothing must be left untried (and I have a further series of experiments in hand) I am not sanguine of finding any external application that will exterminate the borer and be at the same time practicable (from the point of cost) and harmless to the tree. It would be possible to coat the stems and branches with some viscid material that would prevent both the egress of the beetles then inside and the ingress of fresh insects from outside. I have already tried two such materials,—coal-tar and 'smearoleum.' The former completely killed the parts to which it was applied, while the later effectually checked the development of any new shoots upon the treated surface. Such treatment fails also on the point of cost. Viscid mixtures cannot be applied by spray but must be painted on with a brush, and to answer the purpose every inch of the surface of the bark must be treated—a process occupying so much time that the cost of the work has been found to be prohibitive, even if otherwise satisfactory—which it is not. Any application that is of the nature of an

AIR-TIGHT COATING MUST BE INJURIOUS

to such a plant as tea, in which the living tissues of the bark are unprotected by any corky superficial layer. If the stem of a healthy tea bush is even lightly scraped with the finger-nail, the green living tissues are at once revealed. This bark contains lenticels which are functional in the respiratory processes, and any interference with their functions must injuriously effect the health of the plant. It may be said that there are possible other mixtures that could be applied without interrupting the passage of the necessary gases. I have as yet, failed to find any such mixture that will at the same time either act as a deterrent or form a barrier against invasion by the borer. If an active poison such as arsenic, is employed, it would be necessary that an appreciable quantity should be injected by the insect. But the actual superficies of the exposed surface that is operated upon by the beetle is very minute, and the perforation is very generally made in the hollow of an old leaf-scar—just the very place which would be most liable to escape the action of the poison. It is, moreover, extremely doubtful if the material excavated by the beetle is taken into its alimentary system. It is more probably merely pulverized and rejected.

But though a direct cure has thus been shown to be improbable, I am fully convinced that the pest may be not only kept in check, but

RENDERED NEGLIGIBLE BY INDIRECT CULTURAL METHODS.

Indeed, I have been assured that upon one estate where such methods have been systematically employed a field of tea that has been continuously infested by the borer since the year 1892, is now giving larger yields than it ever did before. This system is simply high cultivation, resulting in a continuous healthy flow of sap throughout the plant—a condition most unfavourable to the increase of the borer. In my circular on the "Shot-hole-borer," issued in 1908, I wrote as follows:—"I have repeatedly observed that a vigorous condition of the plant results in an obliteration of the earlier perforations and a tendency to choke out the insects that have more recently gained an entrance into the branches. The mouth of the tunnel is invaded by an ingrowth from the

vigorous cambial tissues. New wood is then formed, covering up the old wound, and the plant is able to carry on all its functions without interruption." I am still prepared to fully endorse this statement. [A figure representing an actual section through a piece of a tea branch where such an ingrowth has occurred, accompanies the article.] Though burning the prunings is undoubtedly the most efficient method of destroying the insects contained therein, it has been found in practice to have the serious drawback of depriving the soil of a vast amount of nitrogenous material that could be returned to it in the form of green manure. I consider that the benefit derived by the plant from a proper burial of the green prunings will far outweigh any injury that may arise from the escape of a few of the insects. If there is much heavy wood with the prunings, this may be first separated and burnt. Where the complete destruction of prunings by fire is insisted upon, it will be found necessary to replace the material by its equivalent in either green or artificial manures, at considerably enhanced cost. Failing this the tea will undoubtedly go back,—losing stamina from its inability to withstand the repeated attacks of the pest. This question of the problematical escape of some of the

INSECTS FROM BURIED PRUNINGS

is rendered negligible by the fact that it is generally impossible to ensure the complete eradication of every insect from the tea bush by anything short of collar pruning. I am strongly opposed to the excessive punishment of the bushes that is sometimes inflicted in the endeavour to cut out every borer. Such an attempt is quite futile. The points of attack being quite distinct and separate from one another, it is impossible to be sure that the pest has been eradicated without cutting up every branch; and even then there may be (and frequently are) tunnels in the main stem itself. Again, without close examination by means of a lens, it is difficult to determine whether any particular tunnel is tenanted by the insects or has been deserted by them. I would prune an infested tea bush—equally with an unaffected one—according to its growth of wood. The object in view is the production of strong sappy shoots, and if any branch gives promise of producing such, I would spare it even if it bore visible signs of infestation. If the cut actually exposed the galleries of the insect, I would trim it down to a clean surface—to prevent the lodgement of water. Old hide-bound branches bearing only weak shoots should be ruthlessly excised.

I must own that I was, at first, insistent upon the burning of prunings and opposed to their burial. But a careful study of the results has convinced me that the latter is the sounder principle. There is

ANOTHER POSSIBLE CULTURAL METHOD

that is now being made the subject of experiment. It has been suggested that dense shade, by inducing a more sappy growth, may render the plant unsuited for the propagation of the insect. The partial, checked shade offered by *Grevillea* and *Albizzia*, as usually cultivated, is evidently non-deterrent. I propose to try the effect of a dense shade of some fast growing tree which can be readily removed or thinned out when it has served its purpose. The common 'dadap' (*Erythrina lithosperma*) commends itself as particularly suitable for this experiment. If this treatment proves successful it may be possible to exterminate the borer, in any particular field by leaving it under shade for a year, then thinning out the shade and pruning the tea. Such treatment will necessarily result in some diminution of the crop for the period during which the tea is under treatment, but if the desired end is attained, temporary sacrifice will be warranted.

A correspondent has sent me detailed accounts of a treatment by which he reports that the beetles can be killed in the living stem. His method, as given in his own words, is as follows:—"For the destruction of the pest, scorch the bushes behind the pruners with torches made of cocoanut leaves. A few *Grevillea* leaves or other rubbish lying about may be placed in the centre of the bush to help the flame. The torch is applied below to the centre and moved round the bush towards all the side branches—the insect will be found dead on its back in the cell. The white grubs (young beetles) are also killed.

The cost of firing, with women and boys, is not more than Rs.18 per acre, including torches. A cooly does 200 bushes in damp weather and 250 in fine weather." I know, from experience, that a

COMPARATIVELY SHORT EXPOSURE TO HEAT

is sufficient to kill the insects. Also that a tea bush rapidly recovers from the effects of fire. But there is one point that must be carefully determined before this treatment can be recommended. Will, as is very possible, the semi-scorched branches be rendered specially attractive to the beetles and so result in rapid reinfection?

In the above details of the experiment, the cost may be considered very high, if not prohibitive. But I am informed that Rs.8 of the quoted figure is expended in the torches alone. It is probable that some more economic form of torch may be devised. An absorbent material soaked in kerosene could be employed.

The Ceylon Tea Crop for the current year is estimated at one-hundred-and-seventy million lbs.

At the Annual General Meeting of the Dikoya P. A. on January 17th, the Chairman, Mr. R. Huyshe Eliot, referring to the Tea Cess, said:—

As you know, the Secretary of State has written to the Ceylon Government and instructed them to repeal Ordinance 4 of 1894, and the "Thirty Committee" feel that this should not be passed over without protest. At the next general meeting on the 8th February, a resolution to the effect that we protest against this repeal of the Tea Cess will be proposed. Of course, the question of the Cess is a matter of opinion, but a great many hold that the Tea Cess has done its work and should now be shut down. There are certain things to be said for and against, but it has done good work in the past. It was raised from 10 to 20 and from 20 cents to 30 cents; and it now stands at 20 cents. If we do away with it altogether, we shall have no organisation whereby we can collect funds for anything; and once stopped, there is no doubt about it, it will never be started again. I think a 10 cents Cess is a matter no one feels and we should always have an amount of funds available in case anything turned up. I think it would be a great mistake to shut it down at the present moment.

Messrs. Gow, Wilson, and Stanton (Limited) write in reference to the position of tea in the past year:—The year has been somewhat disappointing to producers. Nevertheless, it closes with a distinctly more hopeful outlook than for a long time past, and there were unmistakable signs of the dispersal of the heavy clouds which have over-hung the tea-producing industry for so many years. Consumption at last seems in a fair way to overtake production. Little new land has been opened up during the past few years, while consumption showed a marked increase at home and abroad, especially during the latter months of the year, when it occasioned a sharp advance in the price of lower and medium grades, which had previously been on about the lowest recorded basis. The duty in this country was reduced from 6d. to 5d., and this, although not altogether a popular measure, as it had been hoped that a reduction of 2d. would have been made, nevertheless proved of benefit to producers, and was followed by increased home consumption, which for the whole year was 10,845,283 lbs. ahead of 1905, about 269,500,000 lbs. being consumed, against 259,088,591 lbs. last year, the twelve months proving a record as regards quantity. This increase was accompanied by a strong demand for good teas, and resulted in somewhat improved values. The general result of the year's working is that the average price was rather above that of 1905. One of the features this year has been the use of a better class of tea, and a consequent neglect of the poorer kinds, with a corresponding depreciation in their value. The year has been one of great promise in regard to the expansion of foreign markets, which have before now proved to be the safeguard of the industry, and this year have more than ever assisted in raising prices from the extremely low level to which they had fallen.

RUBBER.**In Portuguese East Africa.**

In the course of an article in the *Natal Mercury*, Mr. Waldegrave J. Thompson says:—

On leaving Inhambane by this road, a small plantation of aloes and Ceará rubber will be noticed, belonging to Senor Cardoza. This rubber seems to take very well to the soil and climate of the district, and the owner anticipates good results from his invention for producing sheet rubber direct from the tree. We were shown several samples of this material, which had been run out to an almost transparent thinness by a process which Senor Cardoza is naturally keeping to himself, and he is carefully experimenting with his trees, of various ages, as to the amount of rubber that can be obtained per annum from each. His four-years-old trees are now giving 1 lb. of rubber per tree in the 12 months. If this can be continued, with a gradually increasing ratio as the trees increase in age, there is little doubt that he has a very rosy outlook before him. The natives in the district bring in a certain amount of Landolphia vine rubber for barter and sale to the merchants in Inhambane, but it probably does not amount to much in the course of the year.

Block Rubber from Wet Biscuit.**THE RESULT OF AN IMPORTANT EXPERIMENT.**

Mr. Spencer Brett, the London broker, who was on a visit to the recent Rubber Exhibition in Ceylon, took with him in December, by arrangement with Dr. Willis and Mr. M. Kelway Bamber, a consignment of block rubber prepared from wet biscuits. He placed the consignment in the London market with successful result, as a cable now received announces that it was highly reported on and fetched 5s. 6d. per lb. This price was obtained at the same time as Culloden realised 5s. 9½d. and other leading Ceylon marks 5s. 7½d. As will be seen from the circular given below issued from the Government Printing Office. Taking into account the additional moisture in the block rubber in question the price represents 4d. per lb. more than most of the other plantation prices. The result of the experiment is undoubtedly highly satisfactory.

The circular referred to above is as follows:—

EXPERIMENTS IN CREOSOTING AND BLOCKING WET RUBBER.

J. C. WILLIS AND M. KELWAY BAMBER.

In accordance with a suggestion made by one of us at the Rubber Exhibition, experiments were commenced to test the possibility of sending home undried block rubber preserved with the aid of creosote.

It was impossible at the time to obtain the crude creosote in Ceylon, so experiments were made with the pure article. In order to mix this perfectly with the latex, it was first dissolved in methylated spirits as recommended by Parkin in 1899.

Acetic acid was added in the usual way, care being taken not to add too much, and the latex was rapidly coagulated in a Michie-Golledge machine.

As soon as coagulation was complete, the mass was cut up, passed once or twice through the washing machinery to remove excess of soluble matter, and then immediately blocked for two or three hours in a wooden mould in a screw press.

The block so prepared contained from 8 to 9 per cent. of water, but with better fitting moulds and rather higher pressure, this might be reduced to 7 per cent. if necessary, and kept fairly uniform.

A drawback to the rapid coagulation in the above machine is the formation of a spongy rubber, which when blocked does not have a very satisfactory appearance. Better results as regards appearance can be obtained by coagulating the rubber in tins or troughs of any length, but of the width or twice the width of the mould blocks, and cutting this into the requisite lengths or shapes with a sharp knife, and filling the mould with the pieces.

The troughs should have outlet cocks beneath to run off the water and impurities, and the rubber can be washed without manipulation by half filling the trough once or twice with clean water from a spray nozzle or from below.

Rubber prepared in this way amalgamates perfectly in the mould, and a homogeneous mass is obtained.

The blocks rapidly darken on the outside as they dry, and then look and smell very like the block of (South American) fine hard Pará exhibited at the Rubber Exhibition.

Samples prepared in the above manner were immediately taken home by Mr. Brett, one of the rubber Judges at the Exhibition, and he has just cabled as follows:—

"Value per lb., 5s. 6d.; containing moisture 9 per cent.; continue experiments; strength excellent, better than average plantation rubber."

As ordinary Ceylon plantation rubber contains less than 1 per cent. of moisture, this price is evidently equivalent to 6s. a pound for the actual rubber contained in the sample. Now the actual sales on the same day were "Culloden 5s. 9½d.; seven other estates 5s. 7½d." Our rubber, therefore, obtained a price 8d. better than the exceptionally good lot sent from Culloden, and the price thus compares very favourably indeed with any hitherto realized, though not yet up to that of fine Pará from South America.

The following table shows the composition of this rubber after drying ten days, and the average of good Ceylon biscuit:—

			Creosoted	Average
			Wet Rubber.	Ceylon Biscuit.
Moisture	...	...	... 7.06	... 0.45
Ash	...	...	... 0.18	... 0.34
Resin	...	...	... 1.92	... 2.01
Proteids	...	...	... 8.67	... 2.87
Caoutchouc	...	...	... 87.17	... 94.88
			100.00	100.00

Nitrogen 0.58 per cent. ... 0.87 per cent.

This analysis was made after the rubber had been drying for ten days; the original moisture was 9.13 per cent. The portion of the same sample sent to London was protected from loss of moisture, and contained about 9 per cent. on arrival. It will be noticed that the proteid matter is higher than usual, and the resin and ash rather lower.

The experiment, though obviously incomplete and partial, points to the conclusion that we were removing too much from our rubber, especially in the way of moisture, and that in future it will be advisable to block the rubber in wet condition, provided that it is rendered antiseptic by the use of creosote or other preservative.

From the experiment it is evident that the erection of large factories for the mechanical treatment and the drying of rubber would be premature and it would be advisable to wait while the experiments are being confirmed on a larger scale.

Such experiments are now in progress, the chief points to be determined being:—

- (1) The minimum amount of creosote or other antiseptic to be used.
- (2) The best proportion of water for strength and quality.
- (3) The best means of ensuring a *constant* proportion of moisture.
- (4) The amount of resin and proteid matter that can be left in the rubber to obtain the best strength.

We have to thank the Rosehaugh Company and Mr. C. O. Macadam for kindly allowing us to conduct these experiments on Culloden estate; also Mr. Spencer Brett for taking home the sample and cabling the valuation and report.

The Ceylon Rubber Exhibition.

In their annual review of the India-rubber market for 1906, Messrs. S. Figgis and Co., say:—"The exhibition held in Ceylon in September was most interesting and useful, and plantation rubber of all descriptions was nicely shown. We contributed a case of specimens of most varieties of rubber, and presented it to the Government of Ceylon for their museum. No doubt planters learnt much from it, but we do not believe that we can indicate from Europe much improvement in the mode of preparation or cultivation of rubber beyond the general advice we have repeatedly given to:—Pack it in good, dry condition (excess of resin much objected to) into strong case of 1 cwt. to 2 cwt. each. No paper, Fullers earth, &c. to be used. Keeping different qualities and colours separate, and not to mix immature rubber with older; to pick out and send separately dirty, barky pieces. To smoke the rubber when convenient, because 'smoking' appears to increase its resiliency, but keep it as clear and yellow as possible.

The World's Supply of Rubber

in 1906 we estimate nearly 65,000 tons, and consumption almost as much. Planting has greatly increased and will produce much more in the near future. We estimate planted and planting (but some mixed with tea and cocoa and coffee): Ceylon, 100,000 acres; Malaya, Malacca, Sumatra, &c., 90,000 acres; Borneo, 12,000 acres; Java, 20,000 acres. Mexico has some large plantations, also Nicaragua and Honduras, and some in Columbia, Ecuador, Bolivia and Peru. India has begun, say 10 to 20,000 acres planting, Burmah and Mergui beginning, the Philippines, Samoa, Hawaii and other Pacific Isles, and Seychelles and West Coast Africa will add to the supply—also the West Indies. In the Congo and German West Africa plantations are in progress. We repeat our caution to plant, where practicable, *Hevea Brasiliensis*, as hard clean rubber sells best."

A sub-Committee, consisting of the Chairman and Secretary, Ceylon Planters' Association, the Hon. Mr. E. Rosling and a representative from each of the District Associations, viz:—Matale, Kalutara, Kandy districts, Pussellawa, Kelani Valley; Kurunegala, Kegalle and Uva, has been appointed to consider the question of the necessity for the introduction of a Rubber Thefts Prevention Ordinance.

CAMPHOR.

In Jamaica camphor trees have been attacked by beetles. There were several fine healthy young trees of Camphor growing at the Hill Garden, and in December, 1905, it was noticed that the leaves of nearly all the trees were of a sickly yellow colour, and many of the branches were quite dead. A large branch was cut off and the larva of a beetle was found which had bored right up the centre. The roots were then examined. The soil was removed, and at the collar of each tree the bark was either dead or so seriously injured that it could easily be removed in comparatively large layers. The wood underneath the bark was tunnelled in various directions, and just underneath the injured bark larvæ were found in various stages of development, and the mature beetle.

Specimens were submitted to Dr. L. O. Howard, Chief of the Bureau of Entomology, Department of Agriculture, U.S.A. Dr. Howard referred the specimens to Mr. Schwarz, who identified the beetle as *Hilipus elegans*, Guerin, a member of the family Curculionidæ. He states that this species is not a native of the West Indies, but has been manifestly imported from some part of Central America, where it is quite abundant. Nothing appears to be known of the habits of the species, but as the genus *Hilipus* is closely allied to the pine weevil of the Northern United States, it may be inferred that it lives under the bark of various deciduous trees, and Dr. Howard recommends that any Camphor tree which shows any sign of being affected by the beetle should be uprooted and burnt.

The Coorg Railway Project.

The following Memorandum on the Planting Industries of North and South Coorg with reference to the proposed Mysore-Coorg-Tellicherry Railway has been submitted to the Chief Commissioner by the Coorg Planters' Association.

Preamble.

It has been suggested by the Chief Commissioner of Coorg that the Coorg Planters' Association should send in to Government a Memorandum about the present condition and future of the Planting Industry in Coorg—especially with reference to the dying out of coffee, and the influence it would have on the amount of traffic on the proposed Railway.

In connection with the question of the present condition and future of the Planting Industry in Coorg, especially with reference to the dying out of coffee, and the influence it would have on the amount of traffic on the proposed line. As far as South Coorg is concerned, it is no doubt a fact that a number of estates—some European, but mostly in native ownership—which, owing to the low prices coffee has realised of late years, have had their expenditure unduly curtailed, are, even under those circumstances, being worked at a loss, and are in consequence either being, or have been, already abandoned. A great many of those estates, however, were planted during the palmy days, when coffee was fetching 80s. to 100s. per cwt. on land either unsuitable to coffee, or with adverse climatic surroundings, and are, therefore, practically worthless as regards the cultivation of coffee, under the present condition of affairs at any rate. On the other hand, where a proper system of cultivation has been pursued, and the soil and climate are favourable to the growth of coffee, the yield and appearance of very many estates at the present time compares favourably with that of 10 or 20 years ago, and there is no sign of decadence or soil exhaustion apparent. In fact, generally speaking, the bulk of the coffee estates in South Coorg are in splendid condition, and it is, practically, the universal opinion amongst owners of land, or their authorised representatives, that such is the case, and, moreover in spite of the present low price of the staple the feeling is most hopeful as regards the future of coffee. Since the severe lessons in economy which have been inculcated upon us of late years have taught us that coffee can be well and sufficiently cultivated, with care and judgement, on much cheaper lines than in old days were ever even contemplated, or considered possible, and thus with a comparatively small rise in prices, and statistics, and all available information, on the whole, point to the probability of this desideratum arising at no distant date, coffee would become once more a highly flourishing industry.

In regard to figures and statistics as to the bearing capacity of coffee in South Coorg, these could, doubtless, be made available, if necessary, but as such figures are not of much use unless the names of the specific properties to which they apply are given, and many owners are strongly averse to such information being published in a paper of this description. I do not propose, therefore, to add any figures or statistics thereto, though I may state that I have the word of many of our leading owners, or their authorised representatives, that the yield of their lands compares favorably with that of former days, and, from figures placed at my disposal by these gentlemen, I may put the average bearing capacity of our lands at about 4 cwt. per acre.

From a consideration of the above remarks, therefore, on the situation in South Coorg, it will, I think, appear evident that any question of deterioration, or dying out of coffee, in the main, in this District is non-existent, and consequently no fear of any ill-result can accrue to the proposed Line from the present or probable future condition of the Planting Industry in South Coorg as regards coffee any way. In conclusion, I may add that with the remarks on the subject of the exploitation of other products in the Province—embodied in another para. of this memorandum—should facilities for quicker and cheaper transport be secured to us, through the construction of the projected Line of Railway, we, in South Coorg, entirely agree.

In the North Coorg District the estates are in better order and condition than they were 20 years ago, and there are few if any Planters there who think there is any fear of coffee dying out, and who mostly work their estates liberally, and even with these low prices are doing so at a profit, especially those highly cultivated. The following figures taken from one large group of estates in North Coorg conclusively prove that there is no reason to think that coffee is deteriorating. On this group the average crop for 20 years was 4 cwts. per acre from 1884 to 1904. For the last 5 years ending with the crops of 1905-06 it is 4½ cwts. per acre, and the estates are looking stronger and healthier than they did 20 years ago. This applies to most of North Coorg and shows that there is no decadence, or decrease in yield, and that the properly cultivated estates are as good as ever. Generally speaking, moreover, a small rise in the price of coffee would stimulate the industry in a remarkable manner, besides enabling many cultivated estates to cultivate more liberally, which would result in an increase of yield and accordingly more traffic on a railway for crop and manures. With the present low prices, the margin of profit is so small, that many estates are unable to pay the high rate of interest charged on loans and mortgages, without unduly cutting down expenditure, which means decreased yield.

Coffee statistics too point to a more favourable state of affairs, as the world's visible supply of coffee is lower than it has been for the last 4 years, and the last 3 years the output has been rather less than the yearly consumption, so that Planters can reasonably hope for a rise in price, which would materially help towards increasing the output of coffee and assuring its stability.

During the last few years a great change has taken place in the system of cultivating estates, and a great deal more artificial manure is being used, and if more scientific help was available there is no doubt that the use of artificial manure would largely increase and would have to be brought in over the railway.

Of late years also the two principal coffee diseases have been on the decrease. Neither Borer nor Leaf Disease (*Hemileia Vastatrix*) have caused anything like the damage that they used to do, and bug is practically unknown in Coorg, and has never touched the coffee trees. Previous to the completion of the Revenue Survey of Coorg, the figures of the area under coffee were quite unreliable, and when they were first brought out, a very large area of land which had been planted by European and Natives on the Ghauts, and in other unsuitable localities, were included, much of which was in a semi-abandoned condition, and as soon as it was brought under taxation was abandoned though a good deal of land which was in a semi-abandoned condition was held on to, and the tax paid for some years in the hope of higher prices coming when it would have paid to cultivate it; but low prices have ruled for so long now that it has been given up. Moreover that a great deal of the abandoned land could not have been yielding much coffee for many years is borne out by the following figures, and besides this in the area abandoned is now included waste land which is held under Coffee Tenure, but not planted, which previously was entered under acreage under coffee.

The first reliable figures available are for 1885-86 and give the acreage under coffee and crops as follows:—

1885-86	Acreage under coffee	61,350	Crops	3,875 tons.
1890-91	do	62,741	do	2,130 do
1896-97	do	84,820	do	2,080 do
Survey was completed.				
1900-01	Acreage under coffee	68,596	Crops	3,665 tons.
1903-04	do	52,420	do	3,700 do
1904-05	do	48,145	do	3,960 do
1905-06	do	48,215	do	4,100 do

The crop of 1905-06 was amongst the biggest crops that have been given, though the acreage under cultivation is the smallest, except the previous year, and the yield per acre is the best. Besides this the yield per acre for the last three years is the heaviest on record. These figures, also, show that although a large area had been abandoned previously very little has been

thrown up during the last three years now that the unsuitable land has been eliminated—and that little or no new land has been opened of late years is explained by the fact that no suitable land is available, except in small blocks. They show, too, that in spite of the low prices ruling during the last few years, suitable land properly cultivated is still yielding quite as well as in former days and that there are no signs of deterioration on the bulk of the lands left under coffee.

What is wanted to stimulate the industry is a rise in price, though cheaper transport, such as a railway affords, would be a good help, and enable more money to be spent on cultivation, with the result of an increased yield and larger traffic.

The cultivation of pepper has taken the place of a good deal of coffee in South Coorg, and large acreages of abandoned coffee in both European estates and Native gardens, have been planted out, and are yielding well. There are no statistics available of the yield and acreage of this product, but a considerable quantity is exported to the Western Coast.

There are several other products which could be largely developed with the advent of a railway.

Oranges especially grow well and profitably in Coorg, but owing to the want of quick transport only a small quantity are exported, as three-quarters of the fruit rot on the way, and tons of fruit are never even picked. Nearly every native garden has its orange trees, but the price is so low, owing to want of proper facilities of transport, that little use is made of the fruit. Still even under these difficulties, a good deal of land has been planted up of late years, and large acreages would be at once planted if there was a chance of a railway being made. During the last 5 years the export has increased and would quadruple or more at once, from existing trees, with the provision of quick transport. The planting of rubber is also attracting great attention, and several thousand acres have already been planted, almost entirely in abandoned coffee land, which should bring a large amount of traffic to a railway in a few years' time, which has never been calculated in the estimates already made. Moreover, rubber from Coorg has lately fetched the top price in the London market, which shows that Coorg can grow as good rubber as any part of the world. Cotton too, and various fibre plants are, also, being tried and promise well, and most of them could be profitably cultivated with cheap transport. Therefore, taking into consideration all the various products that can be cultivated in Coorg, and the fact that the advent of a railway would develop new products and stimulate the cultivation of old ones, there does not seem much fear of the further decadence of the Planting Industry, and if a railway through Coorg to the West Coast were once made, there can be no doubt that it would develop the resources of the country enormously in every way, and soon create for itself a large and remunerative traffic over and above that shown in the statistics of traffic which have been already drawn up.

The estimates of traffic made some years ago then showed about 3% profit on the working and construction of the line through Coorg to Tellicherry at plain country rates, and the Government statistics show that there has been no decrease of exports since, but a steady increase in several products, and considering over and above these facts the enormous undeveloped resources of Coorg which a railway would foster, there can be no doubt that production, and consequently export and import traffic, would largely increase under its influence.

Another proof of the steady increase of traffic is the increased amounts which are being paid for the various toll-bars by contractors, and at present large quantities of sandalwood and other products are sent from Hunsur and other places to the railway at Mysore, and railed to Goa, which would all be sent to Tellicherry if there were a railway connecting us with the Western Coast as proposed; one firm alone despatching 500 tons to Goa last year.

(Signed) W. H. SPROTT, *President, C. P. A.*

(") A. LAMBERT, *Hony. Secy., C. P. A.*

	Acreage under Coffee.	Area abandoned.	Acreage under other products.			Exports.					
			Rice.	Other food grains including pulses.	Non-food crops, (cardamom).	Coffee.	Fruits.	Grain and pulse.	Hides and horns.	Cardamoms and spices.	Wood.
						Tons.	Rs.	Rs.	Rs.	Rs.	Rs.
1885—86	61,850	Figures not available	73,805	1,568	369	8,875	17,700	49,000	10,000	1,45,600	33,400
1886—87	62,348		74,071	1,569	379	8,631	17,000	49,000	10,000	1,41,600	34,200
1887—88	63,898		74,807	1,608	487	4,662	7,000	20,000	12,000	70,600	1,00,300
1888—89	61,996		74,449	1,611	529	2,762	7,000	19,400	40,000	66,000	87,200
1889—90	63,207		74,587	1,638	561	3,353	7,000	25,000	30,000	48,000	67,800
1890—91	62,741		74,497	1,592	1,340	2,180	7,000	25,000	30,000	53,600	1,03,700
1891—92	62,107		74,295	1,609	520	5,733	9,000	27,000	24,000	45,900	78,500
1892—93	59,787		74,922	1,617	520	3,170	17,000	1,69,000	25,000	30,000	1,52,300
1893—94	71,149		76,486	1,652	520	2,823	17,000	1,18,000	25,000	1,04,000	1,25,700
1894—95	71,149		76,486	1,652	520	2,823	17,000	1,18,000	25,000	1,04,000	1,25,700
1895—96	73,828		76,330	1,669	520	3,650	25,000	1,00,000	30,000	97,200	1,08,000
1896—97	84,820		95,151	18,743	520	2,030	30,000	1,50,000	20,000	74,000	61,000
1897—98	86,155		95,247	19,201	520	2,462	10,000	1,25,000	15,000	50,000	78,000
1898—99	82,575		94,698	18,584	520	4,558	8,000	1,25,000	15,000	50,000	1,04,200
1899—00	72,296		94,523	18,464	9,315	2,760	8,000	1,00,000	20,000	60,000	1,27,000
1900—01	68,596		94,208	18,200	7,489	3,665	9,000	1,25,000	24,000	38,000	1,19,000
1901—02	65,732		79,980	18,859	7,700	1,440	10,000	3,00,000	25,000	50,000	1,49,500
1902—03	59,417		80,694	12,394	1,107	4,157	12,500	2,75,000	24,000	47,500	1,33,300
1903—04	52,420		79,763	9,689	1,107	3,700	12,000	2,70,000	24,000	48,500	1,98,700
1904—05	48,142		79,111	9,122	1,145	3,960	11,500	2,36,000	25,000	41,500	1,87,800
1905—06	48,215		79,172	8,142	1,109	4,100	12,500	2,38,000	26,000	41,000	2,13,400

Note.—Col. 3. The "area abandoned" as given in the coffee statistics, includes area unplanted, grass land, waste land newly acquired, area under cardamoms, &c. No separate figures of area under coffee actually abandoned are available.

OFFICIAL PAPERS.

Ceylon Rubber Exhibition.

A MYSORE OFFICIAL'S REPORT.

The following Proceedings of the Government of His Highness the Maharaja of Mysore have been made public:—

Read—

Correspondence ending with letter No. 541, dated the 1st December 1906, from the Agricultural Chemist in Mysore, submitting a report of his observations in connection with the Rubber Exhibition held in Ceylon in September last, which he was deputed to visit.

[DR, LEHMANN'S REPORT.]

The Ceylon Rubber Exhibition was held in the Botanic Gardens at Peradeniya from September 13th to September 27th.

RUBBER.

The exhibits comprised a large display of Pará rubber, a fair collection of Ceará rubber and Rambong (*Ficus elastica*) and a little Castilloa. Among the rubbers exhibited were also a collection of "Rubbers of the World" sent by Messrs. Figgis & Co., consisting of the various forms of "wild" rubbers on the London market, various articles manufactured out of rubber, such as hose, belting, tubing, sheets, motor tires, &c., and a collection of samples illustrating a new method of vulcanisation.

The Federated Malay States had undoubtedly the largest display of rubber and had their products nicely arranged along the centre of one of the wings of the Main Building. The Ceylon exhibits were much smaller in bulk though larger in number and lacked as a rule the imposing appearance possessed by the exhibits of their chief competitor; two very notable exceptions were a fine display from Culloden Estate and a smaller display from the neighbouring estate of Arapalakanda. The few Indian samples of rubber were crowded together in one little corner and with the exception of the Hawthorn Estate, there was no attempt made at displaying them. The Indian collections comprised specimen of the four kinds of rubber named above. The highest recognition any of these rubbers received when in competition with those produced in other parts of the world was "honorable mention" given to the Hawthorn Estate samples when competing for the special prize for the best rubber grown above 3,000 feet. The same exhibit carried off the special prize for "the best rubber from India." There were no exhibits from Travancore or Assam, the only two localities where rubber is grown to any extent in India at present.

The rubber produced in Ceylon received most of the prizes awarded in classes open to the whole world. This undoubtedly indicates that in the opinion of the judges, the Ceylon rubber at the Exhibition was of better quality than that produced elsewhere. And as the judges were representatives sent out by some of the leading London brokers, their opinion must indicate the requirements of the market. It is generally admitted that in Ceylon, Rubber trees do not grow as rapidly as those in the Federated Malay States. And the general impression is that in India, Pará rubber will not grow as rapidly as it does in Ceylon. But even if this should be the case, this fact does not necessarily imply, judged by what the Ceylon Rubber Exhibition has taught, that the quality of rubber produced will not be as good as that produced from trees growing more rapidly. Quality and rapid growth do not necessarily go together.

The Chief Prize at the exhibition, that for the "Best Commercial Sample of Rubber," was won by the Lanadron Estate in Johore. It consisted of Pará rubber washed by being passed under a continuous stream of water through two rollers going at different speeds. The "crape" rubber thus produced had

been dried at a low temperature in a vacuum drier and was afterwards pressed into blocks weighing 25 lbs. (about nine inches square and three inches thick) by a large screw press. The advantage claimed for this method of preparing rubber is that the rubber is exposed comparatively little to the oxidising effect of the atmosphere both during the process of manufacture and afterwards. The rapid washing and drying materially shortens the time of exposure during the manufacturing process and being in a large mass after manufacture, a relatively very small proportion of the rubber is exposed to the atmosphere. The washing between rollers going at different speeds removes a large quantity of the impurities, and the compact form saves space and therefore freight when shipping. Besides the London market has paid more per pound for "block" rubber than for similar rubber not blocked. The advantages of this form of rubber are so many that probably most estates producing any considerable quantity of rubber are likely to adopt that form of preparing it as soon as possible. The largest number of exhibits were in the form of "Biscuits." But it is generally recognised that this form of preparing rubber will only do where comparatively small quantities of rubber are being dealt with. "Sheets" are practically nothing more than a biscuit in the form of a rectangular oblong. The latex is coagulated in a rectangular dish instead of in a circular one. A mangle is generally used for the preparation of sheets, while a rolling pin is used when making biscuits.

The best sample of "crape" Pará rubber was produced on a large estate in the Kalutara District in Ceylon at an elevation of about 200 feet or less and about ten miles from the coast. It is the only estate, I was told, which had a special rubber factory. The best sample of Pará sheet rubber was produced from comparatively young trees on Syston Estate at an elevation of about 2,000 feet (1,600 to 2,300) in the neighbourhood of Kandy. On this estate a comparatively small quantity of rubber was being prepared, (the trees being mostly too young to be tapped) and the proprietor took the greatest personal care in every detail of the manufacture. He used a dilute solution of formaline for washing the rubber. This acts as an antiseptic and probably also hardened the rubber. The sheets were dried under a cover of some red fabric, so as to keep out the chemically active rays of light. This sample of rubber was surprisingly light in color and both strong and resilient and was with the exception of one or two samples (the Lanadron block and perhaps the Duckwari biscuits) probably the sample most admired at the exhibition. I had the privilege of visiting the estates on which these samples were produced. The best Pará biscuits, those from Duckwari estate, were produced from trees growing at an elevation of 2,300 to 2,500 feet. As neither Syston nor Duckwari estates competed for the prize in crape rubber, but Culloden estate which took the prize for crape computed for the prize in both the other classes (biscuit and sheet) the awards at the Ceylon Exhibition appear to indicate that the rubber grown at the higher elevation was of better quality than that grown near the sea level.

The best sample of Ceará sheet rubber at the Exhibition was also grown near Kandy at an elevation of about 1,500 or 2,000 feet. In quality it was very little, if any, inferior to the best Pará sheet, equally light in color and as far as I could judge as strong and resilient. The manager of this estate from which the sample of rubber came, claims to have had but little difficulty in tapping the Ceará trees. But there was no tapping going on on that estate (or, as far as I could learn, on any other Ceará rubber estate) at the time of the Exhibition and owing to the ill-health of the manager, I was unable to even see the trees which had produced this sample. A large number of Ceará trees in the neighbourhood of Kandesalle which had been heavily tapped (probably some months before) were healing up nicely and showed no signs of having been materially hurt by the operation notwithstanding that the cambium layer had been cut. The general opinion in regard to Ceará rubber appeared to be that it had hardly had a fair chance before being cut out some time before the present boom in rubber began.

Of *Castilloa rubber*, there were very few exhibits. I have only seen five or six samples, most of which were not for competition. The official list gives only two exhibits under this class. The rubber contains a very large percentage of resin and the latex is difficult to collect.

In the class "*Rumbong*" (rubber from *Ficus elastica*) on exhibition, nearly all came from the Federated Malay States. The only exception was one sample from Bellary. The objections I have heard raised against this species of rubber tree are that it spreads over a large area and is comparatively difficult to tap.

The exhibit of wild rubbers was particularly interesting on account of the strength and especially the resiliency of these rubbers when compared with most of the plantation rubber on exhibit. Numerous theories were advanced to account for this. Some claimed that it was due to the wild rubbers not being dried so much, others to their being dried in smoke containing acetic acid and *Creosote* (a preservative), again others attributed it to the impurities retained in the wild rubbers which were washed out of the plantation rubber, while a few thought that it should be ascribed to the trees in America being older when tapped. But although all these assertions were made with all seriousness and discussed at some length in a serious manner at the meetings held in conjunction with the exhibition, there was not a single argument brought forward to substantiate any of these statements excepting the last one claiming that it was due to the age of the trees. But withstanding that it is generally admitted that old Pará trees give a better quality of rubber than younger ones, no theory for accounting for the admitted difference in quality appeared to have as few adherents as that one.

One of the most interesting, if not the most interesting, exhibit in the rubber section was the collection of samples illustrating Mr. Bamber's new method of adding the sulphur required for the vulcanisation of rubber to the latex in solution and, after mixing both intimately, precipitating the sulphur at the time of coagulating the latex. But as this belongs more to the manufacturing side of the industry than the agricultural side of it, I shall not enter into details notwithstanding that it will probably revolutionise the method of vulcanisation of rubber when the plantation rubber is produced in a sufficiently large quantity to form a considerable portion of the world's supply. (If I am not mistaken, the plantation rubber supplies at present less than 2 per cent of this demand.)

Tapping Implements.

Of these there was a very large collection. But as might be expected nearly all of them were especially designed for tapping Pará Rubber trees. The competition was so keen that instead of one Gold and one Silver medal being given for "Instruments for tapping Pará Rubber trees" two Gold medals and a Silver medal were given. The Bowman-Northway tapping knives and the Miller tapping knives both receiving a Gold medal; the Macadam, and the Bowman-Northway prickers getting a Silver medal. These are all very simple instruments not likely to get out of order. All of them have guards to prevent cutting and pricking too deeply if properly handled.

The implements for tapping Ceará trees had, it appeared to me, not received nearly the same attention and were principally duplicates of the Pará Rubber tapping implements. The Gold medal was withheld.

A considerable number of devices for collecting the latex from different trees into one cup, a rubber band twisted around the trees to form a spiral groove for the latex to flow in when tapping thin barked trees, such as Ceará, and several other devices which had evidently never been tried in practice, were on exhibition but did not appear to me to be very practical. "Drip-tins" of various shapes and designs to assist the latex in running into the cups and several kinds of collecting cups were on exhibition. But as the "Drip-tins" are not likely to be used when tapping is done on a large scale and the collecting cups are very simple little things no description of them is needed.

Machinery.

A. Rubber Machinery.—This consisted chiefly of washing machines, macerators to recover the rubber contained in shavings, etc., a centrifugal to accelerate coagulation, centrifugals used as strainers to remove chips, etc., from latex, mangles for making sheet rubber, tanks for storing latex to keep it in a liquid condition, an apparatus for smoking the latex instead of the finished biscuits, sheets, etc., and a press for making block rubber.

The washing machines and macerators consisted of two horizontal parallel rollers grooved in various ways, generally one roller revolving at higher speed than the other. The rubber to be washed or the bark shaving to be macerated were passed between these rollers with a stream of water playing on the rubber or the shaving all the time they passed through the rollers. To save loss of rubber in the macerating machines, the waste water carrying with it the shavings and rubber had to pass through a wire netting which separated out the rubber and all but the very finest pieces of bark. These coarser pieces of bark and rubber were passed through the macerator again and again until all the bark had been ground down to a fine powder and had been removed by the waste water and the rubber had been stuck together into a band of "Crape scrap." The washing machines acted on the same principle. The only other machine requiring special mention is the coagulator. This machine consisted of a cylindrical drum with ridges on the inside, fitted with a bottom; suspended from above into this cylinder were fans which helped to churn up the latex when the outside drum was revolved at a high speed. The latex was put into the drum, a small but definite quantity of acetic acid was added and the drum set in motion. The latex was coagulated in a few minutes.

B. Other machines and appliances.—Among these were a large grass oil still, a small grass oil refining still, a small saw cotton gin and a camphor still. All but the grass oil refining still were working at some time or other during the Exhibition.

Various models of rubber drying houses were also on exhibition.

Other Exhibits.

The Agricultural Association of Ceylon had various general exhibits embracing grains, pulses, dyestuffs and fertilizers. The Forest Department had a large and splendid collection of woods. The Government Entomologist showed Eri silk worms in all stages of their growth and the silk produced by them. A fine collection of photographs illustrating rubber trees and the various processes in the rubber industry from the planters' standpoint occupied the central portion of one of the three wings of the main building. Large pictures from the "Buried Cities of Ceylon" and the famous mineral Thorionite were also exhibited in this wing. A fine collection of grass oils was of special interest to me.

In a smaller separate buildings were displayed the various native arts and industries; silversmiths, brass workers, lacquer workers and lace makers and others were at work during the entire time of the Exhibition. Most of the arts and industries represented are said to have suffered much from Indian competition. On the whole the work done at the Exhibition was not equal to similar work I have seen in India.

Buildings.

The main building was a handsome structure of three wings built in the Kandian style. Of the other buildings the Refreshment Room and the Industrial and Arts building were also in Kandian style but not nearly so large or ornamental. The machinery building consisted of several long iron sheds generally used by the Ceylon Agricultural Association for their exhibitions. There was a special tent for housing the motor cars used by visitors in going to and from the Exhibition.

Lectures.

One of the chief attractions to the visitors at the Exhibition was a course of ten lectures delivered by the Peradeniya staff and the Judges. These were on Rubber, and Cotton cultivation. Rubber in South India, Vulcanisation of Rubber, prevention of disease, Camphor, Rubber in London, Rubber in the Malay Peninsula, Rubber shipment to London, and tobacco cultivation in Sumatra. Some practical demonstrations in rubber tapping were also given. These lectures with the discussions following them are given in full in the Official Record of the Ceylon Rubber Exhibition.

Regarding the scope of the Rubber Industry for Mysore, I may say that I have seen or heard nothing while in Ceylon which would indicate that Pará Rubber could not be grown successfully in portions of the mainland of our State. According to the statement made by some of the visitors to the Exhibition, Pará can stand more drought than coffee. But whether the latex will flow during the dry hot weather I have not been able to find out. I should be inclined to think it would not. Pará can certainly be grown to advantage at a height of 3,000 ft. in Ceylon and the temperature in Ceylon is for the same elevation much lower than in Southern India. The popular belief that Pará will grow to advantage only alluvial soil near the sea level has of course been exploded sometime ago. Both in the Matale and Kalutara Districts, Pará Rubber seems to love a rocky soil. In the latter districts numerous new clearings had been opened, on steep rocky hill tops a few hundred feet above sea level and these clearings seemed to be doing wonderfully well. These hill tops, on which the soil had not been considered good enough for planting tea, had been completely covered with jungle. This jungle completely cleared before planting the rubber. On some estates the rubber is planted between the tea. But where the rubber is planted close, the tea gradually goes out as the rubber grows up.

Much difference of opinion exists as to the distance rubber should be planted apart. Close planting 10ft. x 10ft. appears to have been popular at one time but the tendency now appears to be in favor of planting further apart. Distances 12ft. x 12ft.; 10ft. x 15ft.; 15ft. x 15ft.; 15ft. x 20ft.; and 20ft. x 20ft. were met with on estates visited. The system of planting close and trying to kill out alternate trees by excessive tapping was condemned by the Mycologist and the Entomologist of the Ceylon Government as in their opinion this practice would tend to spread disease.

Ceará rubber was not grown to any large extent. The difficulty in tapping appears to be its chief drawback. According to some reports, the trees are very liable to die when the Cambium layer is in any way injured during the tapping operations. But on one estate visited were a considerable number of trees which have been heavily tapped and in which the Cambium layer had been badly injured. The injured portions were however being rapidly covered over by fresh growth from all sides, and the trees appeared to have received no permanent injury. Undoubtedly the tapping of Ceará Rubber ought to be carefully studied. There is some possibility that those Ceará trees which die from tapping are not killed by the injuries received as such, but that these injuries simply make it possible for disease germs to enter. It has also been suggested that stripping off the entire outer bark as is generally done before tapping Ceará trees, may be both unnecessary and harmful. The entire question of tapping Ceará needs careful investigation. If that difficulty can be successfully overcome, there seems to be some prospect that at least some parts of the maidan of Mysore may grow Ceará rubber successfully.

No. R. 6527-8—AGRI.—11—36—9, DATED BANGALORE, 5TH JANUARY 1907.

ORDER THEREON,—Recorded.

2. The report will be published in the official Gazette for general information.

3. The Revenue Commissioner will arrange for the publication of extracts of important paragraphs of the report in the Revenue and Agricultural Gazette.

K. S. CHANDRASEKHARA AIYAR,

Secy. to Govt., Gen. & Rev. Depts.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

VOL. II. No. 2.]

MARCH, 1907.

[PRICE AS. 2.

THE U. P. A. S. I.

(INCORPORATED.)

The Chairmanship.

It is with great regret that the resignation of the Chairman, Mr. J. A. Harris, is chronicled. It took effect from the 1st instant. Prior to that Mr. Harris had been in poor health for a considerable time, but had held up bravely. At last he was "ordered home" by his medical adviser, and even then he consented to attend to Association affairs until practically the last day of his stay in India. Mr. Aylmer F. Martin, who was elected Vice-President at the last annual meeting, has assumed charge of the Chairmanship, as from the 1st inst.

"Planting Politics."

In the letter in which he tendered his resignation, the ex-Chairman expressed opinions in regard to several important questions of "planting politics, to which he had intended to give active personal attention. As regards the subjects referred to the present Chairman has invited expressions of opinion and suggestions from the Councillors of the Association. The following extracts from Mr. Harris' letter will doubtless be of general interest.

The Consumption of Coffee.

"The opinion that coffee is insufficiently advertised appears to be becoming more pronounced, and it is thought that unless steps are taken to remedy this, the drink will be held in less popular favour than it is even at present. The trade have expressed the opinion through Mr. Sanderson that it rests with planters to effect the required change. It seems to me that the dealers, who are next, so to speak, to the consumers, and who probably make the largest profit out of the product, are the people who should make the effort. If, however, they won't, in their own interests, move in the matter, it remains for us planters to consider whether something cannot be done, perhaps some concerted measures by all who are interested in the article, and I trust at the next annual meeting the subject may be brought up and discussed. An American gentleman who recently visited this country, and who was indirectly interested in both Tea and Coffee, suggested that we should get some reliable scientific opinions regarding the valuable hygienic properties of coffee and publish them far and wide. I believe some pronouncements adverse to the use of coffee as a drink have been given considerable prominence."

Land for Rubber Planting.

"Great difficulty is being experienced in several districts in obtaining grants of land for rubber. This is especially the case in Mysore, where scarcely a single application has been favourably received in spite of the liberal terms on which land was promised at the recent Conference. The objections made to most of the applications have been quite unreasonable. I think the Association might take this matter up, and address the various Governments with a view to facilitating and expediting grants of land, emphasising the point that as regards the rubber industry time is a most important factor.

Railways in Planting Districts.

"The Government have given us no encouragement with regard to railways, but we should not on that account discontinue agitating. I am not aware of

the strength of the claims there are in favour of the Dindigul-Pollachi-Palghat line, but of the other two whose early construction we suggested, I think there is more probability of the Mysore-Coorg-Tellicherry route being favourably considered by Government, and I advocate the Association concentrating its efforts on this, instead of urging the construction of two practically rival lines.

[On p. 53 of the present issue will be found the report of a speech on this subject delivered at Virajpet on the 18th February 1907 by the Chief Commissioner of Coorg].

Employment of a Scientific Officer.

"The Wynad Association has doubtless put its hand on the weak spot of the scheme for the employment of a Scientific Officer. No man could possibly give adequate time and attention to so many products as are grown by the planters in S. India, but I trust that on this account the scheme will not be allowed to fall through. Let us endeavour to make a start with it, and let one man be at first deputed to deal with what may at present be considered the staple products, Tea and Coffee, and later on, should the scheme prosper and develop, as a similar scheme in Northern India has done, he might be given assistants, when rubber, cardamoms, and pepper might receive their share of attention.

The U. P. A. S. I.

"The failure of Messrs. Arbuthnot & Co. involved the Association in serious loss, and I fear little of the money is likely to be recovered. As I pointed out on a previous occasion, this loss of capital does not affect the income of the Association, and if District Associations will continue to support it as heretofore, there is no reason why it should not continue its career of usefulness. Any curtailment of its sphere of action, which would be necessary if expenditure were reduced below its present level, is to be most strongly deprecated. *The Planters' Chronicle*, which was started chiefly with a view to stimulating interest in the affairs of the Association, has, I trust, achieved some success, and will I hope, by gradual expansion, become an interesting and valuable publication."

The Planters' Chronicle.

To the above Mr. Harris added congratulations on the manner in which this paper has been conducted. Words of encouragement are always "grateful and comforting;" but it may as well be said that the Editor looks forward to a time when such praise as the ex-Chairman has accorded will be more fully deserved. From the developments that have come, it is safe to judge that there will be more in the future. As originally sketched, the plan for the establishment of a special journal to act as an official organ in behalf of the U. P. A. S. I. contemplated the issue of a very small monthly magazine. Already the size upon which estimates were framed has trebled, and though there will probably be months when a few pages will suffice to contain all that has to be said, it is obvious that there will also be occasions when the interests of the planting community will not be fully served unless the *Chronicle* is enlarged. The proceedings of District Planting Associations sometimes make a brave show in these pages; and it seems desirable to indicate that every effort will be made to meet current requirements in the matter of space from month to month, subject always to the essential reservation that the cost of production must be kept within the estimate. The Editor would gladly receive practical hints and advice from planters, and would adopt, as far as financial limitations permit, any that seemed likely to make the *Chronicle* more interesting or a more useful record than it has yet become.

Rubber and Rubber Land in Mysore.

Appropos of the above remarks anent Land for Rubber Planting, the following extract is taken from the Progress Report of Forest Administration in the Mysore State for the twelve months ending 30th June 1906:—

"Of the 2,000 Pará rubber plants put out at Hebbe in the previous year, only 10 per cent. are reported to be surviving, the heavy casualty being due to the depredation of village cattle and wild animals. Steps have therefore been taken to fence the area with barbed wire.

"Large areas have been assigned to European planters upon easy terms for the cultivation of rubber, but the results so far achieved are not very encouraging. It yet remains to be seen whether the conditions of soil and climate prevailing on the Mysore plateau, are favourable for the successful growth of rubber. The Government have, therefore, wisely restricted the grant of lands for the purpose to the local planters."

The Theni Bridge.

At the last annual meeting of the U. P. A. S. I. the following resolution was carried:—

That this Association lay before Government the treatment which the K. D. P. A. has met with from the Madura District Board, as regards the Theni Bridge, and point out that it is a matter of great importance not only to the Kanan Devan District but to the Central Travancore Planters and to that part of the Vaigay Valley in the British District of Madura, which lies south-west of the Theni River.

The Madras Government have recorded this resolution and state in G. O. No. 194, L. Mis dated 20th February 1907:—

In the present state of uncertainty as regards the construction of a railway through the Cumbam Valley, the Government are not prepared to call upon the District Board to construct a road bridge over the Theni river.

The Indian Tea Cess Committee.

As Mr. George Romilly will be going home on leave about July next, he has resigned his seat on the Indian Tea Cess Committee as representative of the Association.

The Governor-General in Council has accepted his resignation and has requested the U. P. A. S. I. to submit, at an early date, the name of the gentleman whom it decides to recommend for appointment to the Tea Cess Committee, to fill the vacancy created by the above resignation.

Appointment of Scientific Officer.

The South Mysore Planters' Association is prepared to support the scheme for the appointment of a Scientific Officer to the extent of Rs.635 per annum for 5 years; this sum is made up of Rs.100 per annum voted from Association funds and Rs.535 subscribed specially by members.

—o—

There is no more voracious and destructive caterpillar than that of the Atlas moth *Attacus Atlas*. Its ordinary food is the leaves of the Sweet-sop and Sour-sop, *Anona Reticulata* and *A. Muricata*, but it will also eat all manner of other leaves and is the only caterpillar I have seen attacking the astrigent Gambir leaves. It eats as might be expected from its large size a great deal of a tree, and reduces its foliage to rags in a very short time. Dr. Lim Boon Keng informs me that he found many of these caterpillars on his Sour-sop trees at Yo Chu Keng, where he has his rubber estate, and fearing they might attack the Pará rubber collected a number to experiment with. He says that on giving these animals rubber leaves to eat, they attacked them and ate for a few minutes then stopped and remained quite motionless till the evening when they fell from the twigs dead. The Hevea leaves had evidently a poisonous effect on these caterpillars. This is very satisfactory, as we can have nothing to fear from this pest, which might if it could digest the leaves have proved a serious pest.—H. N. R. in the *Agricultural Bulletin of the Straits and F. M. States*.

MEETINGS OF DISTRICT ASSOCIATIONS.**Central Travancore Planters' Association.**

Proceedings of the Seventeenth Annual General Meeting of this Association, held at Arnakal at 10 a.m., on the 19th January, 1907.

PRESENT. - MESSRS. H. S. HOLDER, Chairman, O. H. BENSLEY, F. BISSETT, W. GRAHAM, (by proxy), H. B. KIRK, W. H. G. LEAHY, D. MCARTHUR, A. H. MEAD, J. A. RICHARDSON, F. E. THOMAS, F. W. LEFEUVRE, (Honorary Secretary), Visitor - MR. C. LACY.

The notice calling the meeting was read and the minutes of the last meeting were confirmed.

The Chairman then addressed the meeting as follows : -

GENTLEMEN,—The attendance here to-day at this our Annual General Meeting bears witness to the fact that the interest taken in the Association has not waned, and I feel sure that the shorter I can make anything there is to be said the less likely am I to impair such feeling.

The Report drawn up by the Honorary Secretary touches on every subject dealt with during the year. The present outlook of our industry is, I think, more hopeful than it has been for many years ; that which we have just past through did not commence with anything approaching so cheerful a prospect. The reduction of the Tea duty has possibly had time to make itself felt. Stocks are comparatively shorter than they have been for some years past, which I believe to be an encouraging feature, and those who have a better opportunity of forming an opinion than ourselves appear to think that the demand for our produce has for the time being overtaken the supply.

The period of excessive supply and consequent depression that we have passed through should be a warning to those who would venture to open up to any great extent further area in Tea or to increase their yield at the expense of quality.

Our thanks are due to Mr. Mead for so kindly and ably acting as our representative at the U. P. A. S. I. and at the Sri Mulam Popular Assembly.

With regard to H. E. the Governor's visit to these hills I believe he will not actually pass through the district, but will have his head-quarters at Tatecaday, and I therefore doubt if we shall have the opportunity of extending to him the hearty welcome we should have been so glad to offer had His Excellency been making a stay in this district.

It is pleasing to note that the Telegraph line from Peermade to Kunili has been practically erected, and this should prove a valuable alternative line of communication to the District.

In connection with the acceleration of mails which we were so anxious to obtain, the efforts of the postal authorities in this direction have so far been a dismal failure, but I believe that every effort is being made on their part to improve the service with this district and that they recognise our requirements have so far not been fully met.

The subject of the granting of a subsidy to the present Medical Officer will come before you to-day, and it will be for you to decide whether you desire to grant such subsidy : this needless to say can hardly be accomplished without a slightly increased cess being levied. I have the pleasure to extend on behalf of the Association a most hearty welcome to Mr. O. H. Bensley, who has for so many years been an Honorary Member of this Association. In conclusion, Gentlemen, I thank you for your kind support throughout the year and your Committee for their help. With this and the indefatigable and tactful work of your present Honorary Secretary it has been a very great pleasure as well as an honour to act as your Chairman. I now beg to tender my resignation.

The Honorary Secretary's Report.

MR. CHAIRMAN AND GENTLEMEN,—Few of the matters brought forward at our meetings during the past year have been brought to any conclusion, and our representations to Government on various subjects are still under their consideration; my report will be a brief one.

Periyar Bridge.—The Executive Engineer informed us that this bridge will be completed before May, 1907, if the necessary facilities are given by Government.

Travellers' Bungalow and Residency Buildings.—Our various proposals are presumably still being considered by Government, as we have received no definite reply. The question of a Travellers' Bungalow in Peermade was first brought up at a meeting of this Association in September 1896. At the Annual General Meeting held on 11th January, 1902, it was stated in the Honorary Secretary's Report that the Bungalow would be built within the next few months, the work having been sanctioned and the money allotted by Government.

Roads—Good work is being done on the main Kottayankumili road, though progress has not been so rapid as was to be expected. Very little has been done to the Branch roads during the current Malabar year. The Executive Engineer inspected the Cardamom Hill road in July last, and it was then understood that repairs to this road would be commenced from the Twyford end in 1892 M. E. So far practically nothing has been done to this section of the road. Application was made to certain Estates by the Sub-Division Officer, Araday, for coolies to work from October 15th, 1906, on the roads, but unfortunately none could then be spared. It is evident that the Executive Engineer has been unable to carry out his proposed programme, owing to his department being unable to procure the necessary labour.

While on the subject of roads, I think it should be put on record in our proceedings, what arrangement was come to between this Association and Government *re* side-widths of roads in planting districts. After considerable correspondence, the following suggestions of the Chief Engineer were agreed to in a letter dated 14th March, 1897.—

1. That planters be allowed the right of planting up to the edge of all road surfaces.
2. That the width of a road may be always assumed to be 20 feet.
3. That the servants of the D. P. W. have the right of free entry on side widths for the purpose of quarrying, &c.
4. That the side widths shall be taken from the centre of the roadway proper and shall consist of 20 feet each way. These conditions were agreed to in a letter from the Dewan of Travancore, dated 29th March 1897.

Postal Arrangements.—The arrangements introduced on October 1st, 1906, have not so far proved satisfactory, as the Pandy mails arrive on an average four hours late every day, so that letters cannot be delivered the same evening. The matter is receiving the attention of the Postmaster General, Madras.

Motor Lorry Scheme.—Mr. L. G. Knight and Messrs. Oakes & Co., Madras, are still interesting themselves in the proposed service, and the Association is in correspondence with the Chief Engineer on the subject.

U. P. A. S. I.—Mr. A. H. Mead ably represented this Association at the last Annual Meeting. The full report of the Proceedings has been published in book form.

Sri Mulam Popular Assembly.—Mr. A. H. Mead, our deputy, will read us his report later on.

European Resident Magistrate.—It is most satisfactory that Government have seen their way to appoint a European Assistant Superintendent to the Cardamom Hills and Special Magistrate to be resident in Peermade.

Fitter.—A fitter is now available in the District, and the scheme is working satisfactorily.

Abyssinian Wild Coffee.—10 lbs. of Wild Abyssinian Coffee seeds were received from the Madras Government Botanist, and distributed in the District.

Peermade-Kumili Telegraph Wire.—Work on this line, which was originally asked for by this Association in April, 1898, has been practically completed.

Members.—There were 15 members on the roll of the Association for 1906, representing 7,853 acres. It is satisfactory to note that every estate in the District is now represented on the Association.

Crop for 1906 has been returned as 8,904,568 lbs. made Tea from 8,090 acres in bearing, i.e., 482 lbs. per acre, against 8,694,992 lbs. in 1905. It is worthy of note that our crop is now more than double what it was in 1901, and nearly double what it was four years ago.

	Rs.	A.	P.
<i>Accounts.</i> —Subscriptions paid for the year amount to	928	4	0
Expenditure has been	856	5	2
Leaving a balance on the year's working of	71	14	10
To this has to be added one Estate Subscription paid in			
after the accounts were audited	53	6	0
	125	4	10

This with the Rs.140-7-9 brought forward from 1905 makes a balance of ... 265 12 7 to be carried forward to 1907.

Five members paid their subscriptions to the Anti-Tea-Duty League, and a cheque was sent to the London Secretary through the National Bank of India, Colombo.

Rs.20 was subscribed towards the fund raised by the *Madras Mail* for a Distressed Planter owing to the failure of Arbuthnot & Co. There may be more money subscribed, but the list sent out is still in circulation.

In conclusion, I have to thank you for the honor you have done me in electing me as your Honorary Secretary, and now beg to tender my resignation.

The Report was adopted and accounts passed.

Grant-in-aid Dispensary Accounts.—It was resolved that the Honorary Secretary should write to Mr. H. M. Knight and ask him whether he would have any objection to sending in a statement of accounts for the year ending September 30th, 1906, to be circulated among those members of the Association who contributed to the grant-in-aid Dispensaries.

Sri Mulam Deputy's Report.—Mr. A. H. Mead being called upon for his Report spoke as follows:—

MR. CHAIRMAN AND GENTLEMEN.—I was as you are aware elected to represent the District in Trivandrum only at the eleventh hour. Your Committee made out a list of the subjects which they considered desirable to bring up, and these were in due course sent in to the Superintendent of the Cardamom Hills, but were too late to be included on the agenda paper of the assembly, with the result that I was unable to speak on any single subject. Most of the matters which should have been brought up were however already on the agenda against the names of other representatives—notably the desirability of having a registry office at the Araday and of providing buildings suitable for the purpose of housing valuable documents without undue risk of fire.

In addition to attending the Sri Mulam Assembly your Committee empowered me to call on the Chief Engineer and discuss the matter of the District roads maintenance. As you are aware it was succinctly promised that the roads in the District should be put in thorough repair and be handed over to the Association with the Annual grant for upkeep. But the Chief Engineer subsequently wrote to the Chief Secretary that he thought the money would be spent to better advantage departmentally. Mr. Bastow was kind enough to grant me an interview and to discuss the matter, and I was able to point out how unlikely this was to be the case. I had to explain that the roads at present kept up by the Department P. W. were going from bad to worse although the grant was a fairly adequate one. Whereas the present grant-in-aid roads were better than they had ever been, owing to the good work and extra money spent by the estates interested in their condition.

I was able to hand Mr. Bastow the accounts showing money spent on the Manan's Creek and Granby roads, which showed in both cases a considerable sum expended in addition to the Government Grant, and to assure him that the condition of these roads was incomparably better than roads kept up by Government with a considerably larger grant. Mr. Bastow confessed that this extra expenditure was news to him, and that Peermade was the only District where planters' roads were not kept up by planters. He also admitted that this system had worked and was still working satisfactorily in the other planting Districts. Finally, Mr. Bastow has promised to reconsider his decision and go into the matter once more. Well, Gentlemen, both the P. W. D. and ourselves want the same thing, namely the best possible use made of the grant, and I for one am not afraid of Mr. Bastow's decision, as there is not the slightest doubt that we can and do get better value for our money than the D. P. W. on the Hills, and this fact is patent to anyone who goes into the matter with an unbiased mind.

I thanked Mr. Bastow for the good work being done on the K. K. road: a large quantity of metal is ready to be put down.

I spoke to the Durbar Physician on the matter of the necessary qualifications of the District Medical Officer. The matter has been laid before Government by Colonel James, but no answer has as yet been given.

Medical Officer's Subsidy.—The following resolution was proposed by Mr. Leahy and seconded by Mr. Bissett:—

"That this Association do grant a subsidy of Rs.50 per mensem exclusive of mileage and batta to the present Medical Officer in return for Medical attendance on all members of this Association and their families."

Carried nem. con.

Currency Difficulties.—Read letter from the Chief Secretary dated 23rd October, 1906, stating that, as the currency crisis had evidently disappeared, no further action was considered necessary.

Resolved that the Honorary Secretary reply and point out that Bazaar Merchants still refuse to accept 2 chuckram coins in Kottayam, Mundakayam and in all the bazaars throughout the Peermade District, and to ask that similar action should be taken in these districts as was taken in other parts of Travancore where the crisis now is said to have disappeared.

Motor Lorry Scheme.—Read correspondence with Government and Messrs. Oakes & Co.

Resolved that detailed information asked for by Messrs. Oakes & Co. be obtained if possible from the Chief Engineer.

Delivery of Mails at Peermade.—Read letter from the Postmaster General, dated 9th January, stating that delay in delivery of mails would be enquired into and receive best attention.

Rules of the Association.—These as previously circulated, with certain amendments adopted by the Committee which were read before the meeting, were passed

Sanction from Government to acquire landed property in Travancore.—The following resolution was proposed by Mr. Kirk (acting for Mr. H. D. Deane) and seconded by Mr. Graham:—

"That this Association considers that the notice recently published in the Government Gazette reading as follows:—

'Europeans and Americans residing in Travancore are expected to obtain the sanction of the Sircar in every instance of purchasing or otherwise acquiring landed property in Travancore'

is against the principle of free trade and is detrimental to the interests of British subjects, and that a copy of this resolution be forwarded to the British Resident asking his intervention through the Madras Government to have this notice cancelled."

Mr. Kirk, who prefaced his remarks by saying that owing to Mr. Deane's absence he had been asked to take charge of the above resolution and put Mr. Deane's views before the Meeting, proceeded to point out that the hardship complained of was, that having obtained permission to reside in the country, and invested capital in laud with the Travancore Government, Europeans were obliged to disclose any private dealings they had with private individuals or petty chiefs.

In some cases to applications for permission to take up private lands no answer had been received for months, and meanwhile outsiders had become aware of the application and bought the land with the intention of selling again at a higher figure to the original applicant.

After some discussion the following amendment was proposed by Mr. Mead and seconded by Mr. Thomas :—

"That this Association requests the Government to reply without unnecessary delay to applications from Europeans and Americans for leave to purchase land from private individuals."

The amendment on being put to the meeting was carried.

Payment of Government Dues by cheque.—Mr. Leahy proposed and Mr. McArthur seconded the following resolution :—

"That His Highness' Government be asked to cancel the recent notification issued re non-acceptance of any cheques on Banks in payment of Government dues."

Mr. Leahy pointed out that owing to the great inconvenience caused if taxes, etc., had to be paid in cash, permission had been obtained in June, 1899, by this Association from the Dewan, Mr. Krishnaswamy Row, for taxes to be paid by members of the Association by cheques drawn on any Madras Bank. There seemed to be no good reason why this concession should have been now withdrawn.

The resolution was carried unanimously.

Honorary Member.—Mr. J. H. Kenyon, Assistant Superintendent, Cardamom Hills and Special Magistrate, was elected an Honorary Member of the Association.

Election of Officers for 1907.—The ballot finally showed the following results :—

Mr. H. S. Holder	...	...	<i>Chairman.</i>
Mr. F. W. LeFeuvre	...	...	<i>Vice-Chairman.</i>
Mr. A. H. Mead	..	...	<i>Honorary Secretary.</i>
Mr. W. H. G. Leahy	...	}	<i>... Committee.</i>
Mr. J. A. Richardson	...		

Mr. LeFeuvre, who by the first ballot was elected Chairman, while thanking members for the great honour they had done him, asked that some one should be elected in his place.

Subscription for 1907.—The assessment for 1907 was fixed at 3 annas per acre on cultivated area. In this connection it was resolved that the Honorary Secretary should write to the members who did not pay assessment on all estates under their management asking whether they could not see their way to join for those estates not at present subscribing.

In concluding the meeting the Chairman moved a vote of thanks to Mr. LeFeuvre, the retiring Honorary Secretary, for the services he had rendered to the Association and Planting interests during the year, which was received with applause.

With the usual vote of thanks to the Chairman the meeting terminated.

H. S. HOLDER,

Chairman.

F. W. LEFEUVRE,

Honorary Secretary.

Wynaad Planters' Association.

Meeting of 6th February, 1907, at the Meppadi Club.

PRESENT--Messrs. Abbott, Behr, Mackinlay, Trollope, Powell and H. Waddington, *Honorary Secretary*.

1. *Proceedings of last Meeting* were confirmed.

2. *Scientific Officer*.—Read Messrs. Peirce, Leshe & Co's letter of 31st January and Honorary Secretary's reply.

3. *Coffee Returns Act II. of 1900*.—Read letter from Collector of Malabar of 22nd January and Honorary Secretary's reply. Resolved that the Collector's proposal;—that, the return, form B, as to crops, be made in bushels of Coffee despatched during the calendar year, be agreed to. In the opinion of the meeting, the following was a fair rate of conversion:—

For Parchment Coffee	95 bushels to the ton.
.. Cherry Dried ..	140 do
.. Clean ..	47 do

4. *Cannanore Exhibition*.—Read letter from General Secretary, Agricultural and Industrial Exhibition, with enclosures and Honorary Secretary's reply. The meeting considers this exhibition should be supported. Members are therefore requested to apply to Mr. K. Ramnni, General Secretary, Tellicherry, for forms to fill in when sending their exhibits. Applications must be sent in by the 28th February, and exhibits must be in Cannanore 10 days before opening of the exhibition on the 27th March, 1907.

5. *Tea Cess Committee*.—Read U.P.A.S.I. Circular No. 6/07, and Honorary Secretary's reply suggesting that Mr. Buchanan, General Manager, Messrs. Finlay, Muir's estates be asked to represent the Southern India Tea interests.—*Approved*.

6. *New Member*.—Mr. H. B. Winterbotham will be proposed for election at the next meeting.

7. *Date of Meetings 1907* were fixed for

The **Second Wednesday** in each month (except April and May).

8. *Local Measures*.—The Honorary Secretary was instructed to make enquiries from the Collector, and ascertain if there is a recognized Government seer measure in the Wynaad Taluq, where they can be obtained, and whether grain merchants are compelled to use them.

9. *Diamond Jubilee Ward—Vayitri Hospital*.—The Meeting being of opinion that this was built only for the use of Europeans and Eurasians will be glad of any information confirming this.

A vote of thanks to the chair terminated the proceedings.

(Signed) W. MACKINLAY, *Chairman*.

(") H. WADDINGTON, *Hon. Secy*.

Shevaroy Planters' Association.

Proceedings of a Committee Meeting held in the Victoria Rooms, Yercaud, February 11th, 1907.

PRESENT.--MESSRS. C. G. LECHLER, J. C. LARGE, TURNER, C. RAHM, F. D. SHORT AND W. I. LECHLER, Chairman and Hon. Secy.

1. Read letter dated 30th January from Mr. E. Dickins stating that he had tendered his resignation as member of the District Board, Salem.

Resolved that Mr. Dickins be thanked for his past services and that Mr. G. Turner, who kindly signified his assent, be asked to represent the Association on the Board, and that the Collector and District Magistrate of Salem be informed of the fact with a view to his nomination.

2. Read and recorded letter dated 2-2-07 from the Rev. F. Daniel regretting his inability to serve on the Committee in place of Rev. F. Poirier, who has left the district.

3. Read and recorded letter dated 12th January from the Secretary, Assam Branch Tea Association, Dibrugarh, re Ceylon Import duty.

4. Read and recorded letter No. 218/Pet. dated 31st January from the Collector and District Magistrate of Salem, re inadequacy of accommodation in the Deputy Tahsildar's Office, Yercaud, and the absence of stabling, intimating that the matter will be enquired into.

5. Read letter dated 26th January from Mr. E. G. Windle placing correspondence between himself and the District Superintendent of Police, Salem, before the Association, re present ineffective arrangements for the prevention of coffee stealing and the desirability of appointing plain clothes detectives at possible receiving villages at the foot of the Hills; also his suggestion that the names of Chetties who have failed in their contracts for purchase of coffee, supply of poonac, &c., be circulated to members of the Association.

Resolved that Mr. Windle be thanked for the valuable suggestions contained in his letter, which will be made use of next season, when new proposals will be made for the safe-guarding of the interests of planters, it being considered too late to alter existing arrangements now.

6. Resolved that the notice of the Collector and District Magistrate of Salem be drawn to the fact that the old Salem measure and the new Government measure are being used simultaneously in his district, and to ask if this is allowable or if grain and other produce should only be bought and sold by the new measure, and if so, whether he will be good enough to have the use of one uniform measure enforced.

7. Read and recorded Prospectus of the Agricultural and Industrial Exhibition, Cannanore.

8. Read and recorded U. P. A. circulars Nos. 4 to 8/07.

Papers laid on the table: Central Agricultural Committee circulars.

(Signed) W. I. LECHLER,

Chairman and Honorary Secretary.

The Moondakayam Rubber Planters' Association.

Minutes of Annual General Meeting held at Yendayar bungalow, Moondakayam, Travancore, at 10 a.m., February 9th, 1907.

PRESENT:—Messrs. H. Drummond Deane (*Chairman*), R. Harley, F. E. Vernede, H. B. Kirk, J. J. Murphy, D. McArthur, R. D. Fenton, A. E. Vernede, J. A. Richardson and H. S. Holder (*Honorary Secretary*).

Represented by proxy:—W. Graham.

The Chairman, in rising to open the Meeting, reminded members that they that day met under a new name, that of the Moondakayam Rubber Planters' Association, as it had been found that the title of the Central Travancore Rubber Planters' Association had led to confusion in correspondence; he then moved that the proceedings of the last Meeting be taken as read.

Mr. J. J. Murphy pointed out that the Honorary Secretary had omitted to record the following Resolution which had been carried at the last General Meeting:—

"That coolies bolting from one Estate to another on the requisition of the Superintendent of the Estate from which they bolted be immediately returned." The Honorary Secretary tendered his apology, and the Resolution was duly recorded and the proceedings of the last Meeting were confirmed.

The Chairman then called on the Honorary Secretary to read his Annual Report and present the accounts of the Association for 1906.

The Honorary Secretary's Report.

GENTLEMEN,—In submitting to you this short statement of subjects dealt with and results obtained during the year, together with a few remarks it may be well to record, I must ask you to bear in mind that the Association as well as the district is a new one and is in its infancy and that therefore the results of this last year's work are in many ways not all that could be desired or what might have been expected had the Association been of longer standing.

Membership.—There are at present twelve Estates registered on the Rolls of the Association, represented by as many individuals.

The United Planters' Association of Southern India.—This Association has been admitted to membership of the U. P. A. S. I. on an annual subscription for the present of Rs.100.

Moondakayam Telegraph Office—One of the first subjects dealt with by this Association was the required establishment of a combined Post and Telegraph Office at Moondakayam. It is much to be regretted that the authorities concerned could not have seen their way to meet our request for the establishment of this office more promptly, but from the latest correspondence on the subject, (I refer to the Superintendent of Telegraphs, Southern Division, No. 7850, of the 25th January, which I will read to you in due course), I think that we may reasonably expect that our requirements in this direction will soon be met.

Extension of Jurisdiction of the Cardamom Hills Magistrate.—This subject is still before His Highness' Government, and I believe it will be some time yet before the matter will be finally disposed of. It does not affect all estates, as some are already within such jurisdiction, but I trust that members who are still experiencing hardship in regard to obtaining the legal assistance they require under present conditions will continue to press the matter.

Dispensary and Medical Aid at Moondakayam.—Our thanks were duly tendered to His Highness' Government and the Medical Department for the assistance given by the establishment of temporary arrangements for the distribution of medicines and the appointment of an Apothecary at Moondakayam; these, however inadequate, must have given relief and done some good. Measures were, I understood, being or about to be taken, to provide suitable accommodation of a permanent nature in the way of a hospital, but the last letter I have received on the subject from Government puts a somewhat different complexion on matters; this letter I will read to you.

Bridge on the New Road to Kuppakayam and Kadaman-kulam.—His Highness' Government very generously gave us a grant for this bridge which is of great benefit to the estates situated at that end of the District, and I have duly tendered the thanks of the Association to His Highness' Government and the Public Works Department in this connection.

Auction Land Sales near Moondakayam.—These, as you will recollect, were stopped and thereby some of us at the time were caused grave disappointment; but, after, all, I am not sure that in the longrun we shall have cause to regret the delay that has occurred.

Subscription.—The audited accounts are laid on the table. You will notice that the year closes with a deficit of Rs.21-9-6. I will ask members to declare their acreages in order that a scale of assessment may be drawn up to meet next year's expenses.

Labour.—Prospects are, I think, improving, but while on this subject I would offer a few remarks which may not here be out of place. The unfriendly attitude assumed towards us by a certain proportion of native agriculturists and the native Press, which has been most pronounced, is much to be regretted and I do not think we need seek far for the direct cause of this unfriendliness, which undoubtedly does exist. I think that in short it may be summed up under the heading of "Pulaya Labour." The reason for this attitude is, in my opinion, not due,

as some would have us believe, to any want of room or that the advent of the Rubber Planter has in any way seriously curtailed the area available for native cultivators, or, as others have endeavoured to persuade the Dewan, to their grave concern as to the clearings of the planter detrimentally affecting the rainfall, but I do believe it is attributable to the fear of the West Coast cultivator of losing his Pulaya labour.

It is most probable that a large amount of Pulaya labour has been drawn away and *rendered more independent* by the Rubber Estates, and it is obvious that since this is the only class of labour suitable for Paddy cultivation on the West Coast, they must be caused grave alarm when they see this labour becoming scarce, and I feel sure that in this they would have our sympathy, but it is to be regretted that those who have sought to put obstacles in the way of the Rubber Planter by the above mentioned and other insinuations, could not have found a more straightforward way of bringing their grievances to light. As a remedy for this state of affairs, I would suggest that the agriculturist of the West Coast should pay his labour a fair living wage, as is done by the planters and which alone induces them to leave the lands to which they are indigenuous; but in any event I feel sure that matters will soon adjust themselves.

I thank you, gentlemen, for the honor you have done me in electing me as your Honorary Secretary for the year and beg to place my resignation in your hands.

The Chairman's Speech.

The Chairman said :—

GENTLEMEN,—Before vacating the chair, I will, on your behalf, thank our Honorary Secretary for the report which he has read us and I think you will agree it justifies our existence as an Association. I trust that this year with an increased support, we shall accomplish more and thoroughly complete our organization. Reviewing the past year, it is regrettable to notice that Government have made such inadequate provision for the medical wants of the district, and though private enterprise among us is providing two dispensaries and Apothecaries for a portion of our labour force, it in no way absolves Government from granting reasonable medical aid and accommodation to the district. I am sorry to have to inform you that the Dewan has thought fit to refuse to carry out the distinct promise given us by his predecessor of a road to Kutikal.

I thank you, gentlemen, for your support to the chair during the past year and regret that owing to press of private work I have been unable to give as much time to your several interests as I would have wished.

I will now vacate the chair and ask you to nominate my successor and also an Honorary Secretary and a Committee. Pending the adoption of rules, I believe we shall be in order in accepting votes at the rate of one for every Estate opened or being opened this year.

Sri Mullam Delegate's Report.—Mr. H. D. Deane then gave a short *resumé* of what had taken place at the Sri Mullam. Mr. Kirk proposed a vote of thanks to Mr. Deane for having at great personal inconvenience acted on behalf of the Association as delegate. Seconded by Mr. J. A. Richardson, and carried.

Rules.—The rules as drawn up were then read to the Meeting and with a few alterations adopted.

Telegraph Office.—Read letter No. 7850, dated the 25th Jany. Mr. Kirk said that in view of there being a likelihood of the office being opened shortly, which he was much satisfied to note, he would withdraw his Resolution on the subject.

Resolution by Mr. Deane.—In reference to the objectionable necessity of Europeans having to obtain sanction of Government to every private land-purchase.

Mr. Holder spoke against any action being taken.

Amendment by Mr. Fenton, that Government be respectfully requested to inform the Honorary Secretary whether the Notification appearing in the Travancore almanac reading :—

“Notice to Europeans and Americans resorting to Travancore.—Europeans and Americans who arrive in Travancore are requested to immediately report the circumstance to the nearest Police authority. Should they desire to reside permanently in this country, they have previously to obtain the permission of the Sirkar through the British Resident, which, if deemed unobjectionable by the authorities, will be duly accorded on the parties agreeing to conform to local laws and usages.

“Europeans and Americans, residing in Travancore, are expected in like manner to obtain the sanction of the Sirkar in every instance of purchasing or otherwise acquiring landed property”—

is a law of the country and, if so, under what regulation ?

Seconded by Mr. J. J. Murphy and carried by a majority.

Medical.—Read copy of letter No. 9675 of the 5th February, 1907, in which the Chief Secretary writes to the Durbar Physician, “regarding the opening of a dispensary at Moondakayam, I have the honor to inform you that if a private dispensary is started there by the planters or anybody else Government will be prepared to give a Grant-in-Aid.”

Resolved, that the Honorary Secretary do write to his Highness' Government pointing out that planters were establishing private dispensaries: one at Kadamankulam and one at Yendayar; but besides this, in the opinion of this Association, a large dispensary fully equipped and with ample ward-room is necessary at Moondakayam.

Liquor Shop near Yendayar.—Read correspondence in connection with the request sent in to the authorities asking for the removal of this liquor shop.

Proposed by Mr. Fenton, that Government be respectfully requested that liquor shops shall not be established in the vicinity of Estates without consulting the Proprietor or Superintendent of the Estates concerned and that the Honorary Secretary be instructed in his accompanying letter to explain the reasons for above request.

Seconded by Mr. J. J. Murphy, and carried.

Kutikal road.—Read correspondence in this connection. After some discussion in committee, the following Resolution was proposed by Mr. J. J. Murphy in open Meeting :—

That this Association regrets that owing to the land dispute between His Highness' Government and the Punjat Chief the Dewan does not see his way to sanction the cutting of the Kutikal road at Government expense, and that the Honorary Secretary be instructed to write to the Dewan asking that permission be granted to the planters interested to cut a road at their own expense, trusting that later on he will see his way to allowing a Grant-in-Aid.

Seconded by Mr. Fenton, and carried.

The Dewan's Visit.—*Resolved*, that in view of the approaching visit of the Dewan to Moondakayam, where he is expected on the 21st February, at least four members of the Association do wait on him with an Address.

Honorary Member.—Proposed by Mr. J. J. Murphy, that Mr. J. H. Kenyon be elected an Honorary Member of this Association and be given notice of all its Meetings.

Seconded by Mr. McArthur and carried.

Accounts.—Mr. H. B. Kirk proposed that the audited accounts as laid on the table be adopted.

Seconded by Mr. J. J. Murphy and carried.

The Election of Office-bearers for the coming year resulted as follows:—

<i>Chairman & Honorary Secretary</i> ...	Mr. H. S. Holder.
<i>Vice-Chairman</i>	Mr. H. Drummond Deane.
<i>Committee</i>	Mr. J. J. Murphy.
	Mr. D. McArthur.
	Mr. J. A. Richardson.

Area.—The following were the approximate cultivated and cleared acreages declared for assessment with the exception of the Rani Co's land, for which no return has been received:—

Travancore Rubber Co	...	...	...	1,000
Peruvanthanum Estate	...	...	...	180
Eldorado Estate	...	...	...	650
Boyce Estate	...	...	...	50
Central Travancore Rubber Co.	...	...	...	1,220
Kutikal Estate	...	...	...	654
Yendayar Estate	...	...	...	380
Moondakayam Estate (Mr. Knight's)	...	...	...	215
Tekoye Estate	...	...	...	500
Moondakayam (Rani Co.)	...	...	...	750
Paloor Estate	...	...	...	150

5,749

With a vote of thanks to the Chairman the Meeting ended.

H. S. HOLDER,

Chairman & Honorary Secretary,
MOONDAKAYAM RUBBER PLANTERS' ASSOCIATION.

Cinchona Bark does not seem likely to benefit Planters in Jamaica. The following is a statement of weights and results of a small shipment that was made in 1905-06:—

Bark received from Cinchona Plantation:—

C. officinalis	...	...	...	873 lbs.
C. succirubra	...	...	...	584 "
				1,407 lbs.

Dry bark shipped:—

C. officinalis	...	...	...	338½ lbs.
C. succirubra	...	...	...	218½ lbs.
				552 lbs.

Lost in drying 855 lbs.

Cost of harvesting bark and carriage to Gordon Town... £ 8 15 10

Help at Wharf 6d., B/L 1/6, Freight 21 ... 1 3 0

£ 9 18 10

The bark was shipped to the Crown Agents for the Colonies and sold at public sale for 2d. 3/8 per lb., and after deducting charges for wharfage, &c., netted only £4 4s. 11d.

Mr. A. W. Cantlay, of Mipitakande, Yatiyantota, Ceylon, has sent in a patent application for a new method of drying rubber by forced draught. It is said that rubber in the form of biscuits, crepe, or sheet, on being put into the machine, immediately after being rolled is completely dried in three or four hours, and that rubber dried by this process can be blocked with great ease. It will cost much less we are informed, than the machines now in use for drying rubber for making into blocks.

PLANTERS' ASSOCIATION OF CEYLON. Annual Meeting.

The annual general meeting of the Ceylon Planters' Association was held on February 8th at 2-30 p.m. in the Victoria Commemoration Buildings, Kandy.

Extracts from the Chairman's Annual Review.

THE CHAIRMAN:—Before moving the adoption of the report, I would like to say a few words. My first sad duty is to refer to the loss the Colony has sustained in the sudden and untimely death of Sir Alexander Ashmore, who was cut off when he seemed full of health and vigour with a long and honourable career before him...I can congratulate you, gentlemen, on the improved position of the markets for all our produce. The rise in tea is a very appreciable one and it helps those estates that were most in need of help. The statistical position is good. We have perhaps touched the limit of our production and I think—and I sincerely hope—we may look upon this rise as to some extent a permanent one. The same remarks apply virtually to cocoa. Cardamom share in the general prosperity. Coconuts and their produce have touched a figure which has been hitherto unprecedented in the history of that enterprise and

RUBBER,

I think I may say, holds its own (hear, hear), for, although the fancy prices that were at first paid for plantation rubber have fallen to some extent, yet the price of Amazonian rubber, which really rules the market, is almost without fluctuation. The statistical position of this fine young enterprise continues good. We, all of us, in our calculations, count upon a very considerable fall from the present prices, but that fall can hardly yet be said to have commenced, nor are there any immediate signs of its beginning. The work of Mr. Kelway Bamber and of the Peradeniya staff is thoroughly appreciated by the planting community, specially with regard to this product, and I hope that their later researches with regard to the curing of rubber in some similar way to the Amazonian rubber may prove effectual and solve the great difficulties now before us.

THE RUBBER EXHIBITION

was a thorough and complete success. It has already done good and will continue to do so. The thanks of the community for that success are due to H. E. the Governor, who took such a great interest in the Exhibition, to the committee in general, and I think I may add that they are due especially to Mr. Denham, the Secretary, who worked in a way that caused the admiration of all who knew his work. (Hear, hear). The report of the Benevolent Fund is laid on the table and copies of it have been sent forward to all members. The prosperity of the island has not caused so many demands upon the fund as usual, but all demands have been very carefully considered and as far as possible met. We make no rule—there is no fixed rule about the distribution, but whenever we have money to distribute and whenever there is any real distress, we endeavour to alleviate that distress out of the money given to us. The actual figures are—our income from all sources, private subscriptions, estate subscriptions, donations and interest, in round numbers amounts to Rs.7,600. The amount we paid out was Rs.3,427. I need not go into details of these payments, but I think I may mention that we give St. Edward's School Rs.600 a year, as a help to anyone who may at times feel the school fees are more than they can cope with. We gave the Little Sisters of the Poor Rs.600. (Hear, hear). These ladies have, in one or two instances, alleviated the last years of some old planters who were past their work and who have died happily in that institution. The work of the "Thirty Committee" is now practically confined to

THE CAMPAIGNS ON THE CONTINENT OF EUROPE

and in America. On the Continent of Europe Mr. Renton may be said to keep pegging away. At times it seems uphill work, but there are signs, distinct signs, of improvement—especially in Germany, Austria and Hungary.

Mr. Renton, from his knowledge of the situation, is very sanguine of our ultimate success and I sincerely hope his anticipation will be granted.

IN AMERICA

Mr. Courtney has completely reversed the policy of our late Commissioner, Mr. Mackenzie. Subsidies have been withdrawn from certain firms, Mr. Williams' services have been dispensed with; he was Mr Mackenzie's advertising Agent. To take their place generally, Mr. Courtney has appointed a Mr. Welsh and seven Assistants, who, by general advertising entertainments at which Ceylon tea is advertised and, by general drumming Ceylon tea, are directly under him as his Assistants. The remuneration that Mr. Welsh and his Assistants receive is a sum of 10,000 sovereigns for 18 months' work. These are rather drastic changes, but your Committee has adopted the traditional policy of giving a free hand to the man on the spot. We now await the results of Mr. Courtney's work, and I may say that we are prepared to give him quite a long and reasonable time to show these results. Both Commissioners—the Continental and the American—have been warned not to make any arrangements yet for 1908, as it is possible that at their meeting in July next, the "Thirty Committee" will then decide upon their programme for that year... The case for the Ratnapura and Passara Railways have been very fully made out. It has been shown to the satisfaction of any unprejudiced person that they will pay from the start, but there is another railway for which I ask your unanimous support and that is

THE RAILWAY FROM MANAAR TO MADAWACHCHI

or Vayuniya. That is the railway which will bring the coolies into Ceylon—the railway upon which the success of Ceylon will ultimately depend, for we are now entering on an era of competition on the labour market in South India which did not exist before. The railway also can be shown to pay from the start. The ferry across Adam's Bridge—across the straits—is a matter of no importance to us at all. The South Indian Railway has brought its line to the Island of Rameswaram and in a short time it will go as far on that Island as it can go; there will be an insignificant gap of water to cover between the two lines—between Manaar and Rameswaram—that can be easily crossed by shallow draft steamers or by native boats, as the coolies used to come across in the old days. That is all we want; but another event has occurred which will strengthen our hands in asking for the railway, and that is that the South Indian Railway is anxious to connect its line with ours. (Hear, hear). If that line is connected permanently with ours—in a permanent manner—then the traffic of a good part of South India will find its way through Ceylon down to Colombo, and I need hardly point out that this will be greatly to the advantage of the Island.....I now move the adoption of the report.

The report was unanimously adopted.

The Chairman :—It is now my duty to vacate the chair.

Mr. J. R. Martin was then re-elected Chairman.

The Committee for 1907.

The COMMITTEE—for the ensuing year was then appointed.

The Thirty Committee.

The SECRETARY laid on the table the Accounts on the "Thirty Committee" appointed to administer the proceeds of the Export Duty on tea levied under Ordinance No. 18 of 1902 for increasing the consumption of Ceylon Tea in foreign lands for the year 1906. The names of 24 members of the Planters' Association to serve on the "Thirty Committee for the year 1907, were submitted as follows:—Messrs. G. C. Bliss, J. G. Sinclair, J. B. Coles, N. W. Davies, Wm. Forsythe, R. H. Eliot, W. M. Sinclair Keith Rollo, R. A. Galton, W. D. Gibbon, Hon. Mr. J. N. Campbell, Messrs. H. O. Hoseason, George Greig, David Kerr, Jas. R. Martin, R. Morison, J. S. Patterson, Joseph Fraser, W. S. T. Saunders, Frank S. Vowler, W. L. Strachan, E. Turner, Alex. Wardrop, James West land.

The Abolition of the Tea Cess.

MOTION OF PROTEST PROPOSED BY THE CHAIRMAN.

The CHAIRMAN :—The resolution stands in my name :—"That this Association regrets the decision of the Secretary of State for the Colonies to 'top the Export Duty on Tea at the end of 1908, and would express the hope that if when the time arrives, a large majority of the Tea producers are in favour of its retention, he will reconsider the question.'" He said :—That resolution, gentlemen, pretty well sets forth our views in the matter: we all hope and trust that the improvement in the price of tea and its general position may continue so that at the end of 1908 the tea cess may not be so necessary as it is now; but there other subjects for which we possibly may find the cess valuable and convenient, and to it might be added such other products as might also contribute to anything for the general benefit. It is not my intention to press home this matter now, for this is not the time to do so. We shall know better in another year or a year and a half, and that will be the time to raise an agitation. At present this vote is merely a vote of protest, and I hope, as such, it will find the support of this general meeting. (Cheers.)

The Hon. Mr ROSLING :—Mr. Chairman and gentleman, I would like to say a few words in support of this motion; for I think it is a matter of great regret that the total abolition of the cess should have been decided upon in face of the opinion of the majority of tea producers, merely at the instance of a comparatively small but noisy minority at home. The Secretary of State has, doubtless, based his action on the agitation of this small minority or possibly, more correctly speaking, the agent for the small minority—for the whole of the correspondence or almost the whole of it has emanated from one office at home. The agitation has consistently and persistently misrepresented and misconstrued everything that the Cess Committee has ever said or done. But before I go further, I should like again to repeat what the objects of the "Thirty Committee" have been. I have stated them several times before in this room. The "Thirty Committee's" efforts were purely Missionary; they were Missionaries to preach the gospel of Ceylon tea in foreign lands, where the trade enterprise or channels had not been established, and directly this trade enterprise or channels had been established, they should withdraw from these countries. I confess to-day it is impossible to show what results we have got from advertisement, for directly we see the trade has reached a certain status we retire from that country. Our opponents at home are constantly asking us to prove what we have done to establish our position. As I said, it is absolutely impossible for any man or men to point to any specific sale and say that is the result of a specific advertisement. No body of men and no trading firm could possibly do it; but the fact remains that every large advertising corporation or Company, directly they have ceased to advertise, have invariably seen a falling off in their sales—notably, I believe, Pears, Ltd., who some years ago reduced their advertising, but had to renew it on a large scale. One of the great causes of complaint against us, was, I think, for establishing a bonus for

THE FOSTERING OF GREEN TEA.

That green tea trade was started at a time when we were producing blacks in a quantity the markets could not deal with. We were face to face with large quantities produced at a losing rate and we felt that if we did not in the future establish a trade, we should foster it then; for every million lb. of tea taken off the market was so much black tea turned into green. It, therefore, reduced the production of black tea for the benefit of the black tea producer. (Cheers). As things have turned out, we have done better and we have started and established on a good sound basis a green tea trade of 4 million lbs. per annum which is remunerative in itself and which I think it will not be denied is an advantage to the trade generally. (Cheers). The Secretary of State, as a member of the Liberal Government, appears to have rather peculiar views in dealing with Ceylon affairs. The whole community has been clamouring for extension of railways, extension of hospitals and other public works, and nothing has been done; and yet when a small minority makes sufficient declama-

tion in the face of the majority of tea-producing interests—and remember that that minority comprises men, the majority of whom in no sense of the word can be said to be in direct touch with Ceylon, whereas the men out here have their little all invested in this business or, if they have not money actually invested, their whole means of livelihood is absorbed in this business—and yet they are able to carry their views. As the Chairman pointed out, this is not the time to proceed with any great agitation. We have still two years before us, but if a year hence the cess is found necessary, I trust all will join with us in pressing for it. (Cheers). There is very little use in going into the issues raised by Mr. Brooke. Mr. Brooke has put his name to so many documents, I do not think I need suppress his name. His platform is an entirely different platform from ours. He maintains we are absolutely useless, we maintain we have done a certain amount of good; and so long as our views are so entirely and diametrically opposed, no amount of argument will convince the other side. I do not think it is necessary to labour the question any more. The position has been kept before you ever since the cess was started. So long as our teas were not known, we felt we should have money at our disposal for pushing these teas. To-day the prospect is bright, but how long will that remain so?—and we may yet see, a year hence, the production from India and Ceylon on such a basis that it may be necessary to still push our teas in foreign countries. (Cheers).

Mr. A. H. THOMAS :—I wish to say a few words on this resolution before the House—not for it, but against it. I am very much surprised at the Hon. Member's speech, because I heard quite recently that Mr. Rosling told the planting community that the time had come to reduce this cess gradually, and he was the first to propose this reduction of 10 cents from 30 to 20 cents, and that it should, by degrees, be exhausted and done away with altogether, and that is really what the Secretary of State is doing at present. I am also surprised that the Chairman should bring before us this resolution without giving one reason why the Secretary of State came to this decision. If the Chairman had no authority, surely our Planting Member had authority to bring before the House the strong reasons they have for coming to this important decision. But nothing has come before us—not a word. This order has come out from home, and Government has gazetted it. I think it was gazetted since they saw the Chairman's motion that was coming before us to-day. Government were sharp enough to have it gazetted, and I really thought it would not come before us to-day. There is, no doubt, a large number of you who will carry it to-day against a minority—a great minority, I say. Another thing at which I was surprised was that the honorable gentleman, because we happen to be in the minority, should say that we are noisy members. I do not think we have been noisy enough. The Secretary of State has given us no reasons, therefore, until we find out these reasons. I do not think this motion should be carried to-day. Another thing, gentlemen, I am a tax-payer—I am a heavy tax-payer. I pay Rs.1,000 out of my own pocket, and I am very loth to pay it. I do not think this expenditure is of such great benefit to us as the "Thirty Committee" think it has been. I believe it was stated in the notice calling this meeting to-day, that a statement of accounts for the past year would be laid upon the table, but gentlemen, whenever that statement of accounts is laid upon the table, a motion is brought before us. I should like to see the accounts three months beforehand, so that we might look into them and see how the money was spent—to see what good work—or rather what bad work, was done. You must acknowledge we have good men at home and in America who have the common sense to look into his matter and ask the question whether this cess is doing good and whether all this money is really spent in a way that we get the benefit by it. I say they are good men and true, doing their best, and it is not from selfishness. It is a matter of trade. It is a matter of business and they deserve encouragement for going on although they find themselves in a vast minority. I do not know whether Mr. Webster is here to-day and if he will say a few words, if he is a member of this Association. Gentlemen, I know very little about the "Thirty Com-

mittee," but I think the large majority of the "Thirty Committee" have come to the conclusion that Mr. Courtney has done well for the Committee and for Ceylon. Well, gentlemen, he has told us plainly in black and white from his experience there for the last year, that Mr. Mackenzie's work was not suitable—that is, leading tea men out there do not appreciate the way the money was spent, and that there was some hole-and-corner work and that money was spent in places where it should not be spent and had not made the market for our tea it should have; and we are also told by experienced men, there are districts where the tea enterprise is flourishing and where no cess money has been spent. All these are matters for consideration; so do not run like a flock of sheep and put your hands up for this resolution. (Laughter). You should ponder over these things. You have come to the conclusion that Mr. Courtney is doing very well and that Mr. Mackenzie was a mistake. [The CHAIRMAN.—No! no!] Mr. Mackenzie has spent a lot of money, and then you come to the conclusion that Mr. Courtney's work is good and Mr. Mackenzie's work is all bad. You can't run with the hare and hunt with the hounds. You must either decide that Mr. Courtney has done well in his year. He has this year and another year to run, and I have no doubt the money you will send him will be honestly and fairly spent for our interest. Gentlemen, I hope this resolution will not be carried to-day, but that it will be postponed and that we should know first of all the reason why the Secretary of State has come to this decision. (Hear, hear.)

Mr. M. H. THOMAS (who was received with cheers):—I should like to make a few remarks in answer to the excellent speech we have just heard—though excellent in disapproving and not approving of the motion. Were it not that the Chairman, in proposing this motion, distinctly said that he thought now was not the time to do more than record our protest against the action of the Secretary of State in bringing the cess to a sudden termination, I think a great deal more might be said than we heard from our Chairman as to the expediency, at any rate, if not the necessity, of the cess being continued. (Hear, hear). But I take it that the resolution now is simply a protest and that we defer to a future time our right and duty of putting forward such arguments as we have to show that the decision of the Secretary of State is not quite in accordance with what this country at any rate, believes in. (Hear, hear). The Secretary of State takes his view on a very sound and very proper basis. He says: "Here is a cess—here is a case where Government has taken upon itself to enforce the private wishes—to compel a contribution at the instance of a majority—a very large majority—of those interested in the benefit that is expected to be derived from it. Among those who pay that cess, there are undoubtedly either members, who, from their own point of view, do not gain by the continuance of the cess. They are in fact taxed by Government against their will." He had yet to learn what His Excellency the Governor stated in his letter—that the minority had, if they chose, the opportunity of expressing their wishes in accordance with those representatives of the Association. Having done so, or having had the means of doing so, it is scarcely fair of them to say, "we few object, you must listen to us and not listen to the majority of those members of the Planters' Association who have proposed and passed this resolution." The decision of the Planters' Association is supposed to be binding on the members of that Association, and what Government points out—and, I think, most justly and rightly—is that the place to bring forward these objections is in the Association itself, not in letters to London. (Hear, hear). I do not suppose any form of taxation was ever assented to yet which had not some objectors. If you want to wait for universal consent to taxation of every kind, you will have to wait till the Greek Kalends; but, as I have said, the motion, which I sincerely hope will be passed, is purely one of protest, and, when the time comes for deciding it I sincerely trust we shall have a very much stronger case to put before the Secretary of State than any one present has any idea of. This Association, I have been informed lately, does not quite possess the influence with the present Government that we have been in the habit of expecting. I think, Sir, that possibly the reason for that belief—whether correct or not, I cannot say—is the

great change that has taken place in the proprietorship of land under agriculture in Ceylon and has diminished the influence of the small number of resident planters here. That should not be the case. Our merchants in Colombo are now, many of them, members of this Association and are all more or less interested in the Association. They are in fact not only merchants but Planters in Ceylon. They represent some of the largest interests in all our produce and in all our doings, and I cannot help thinking that some effort might be made to get the merchants to consider subjects more as members of the Association and planters in the representative capacity in which they stand with regard to the Companies they represent and aid us in bringing before Government strongly the mistake they would be committing by listening to a few members—a few noisy remarks, as they have been called, or perhaps noisy objections—rather than give effect to the weighty deliberations and mature opinions of this Association. (Cheers).

MR. WESTLAND:—I had no intention of rising to speak at this meeting to-day, had our friend Mr. Thomas kept his seat. (Laughter). As he has got on his legs, I now may be excused for giving my own views. I think, if we look round the room and remember the money that has been spent on tea, we begin to realise that it was not all spent above ground. We sunk a great amount of the money got by means of the cess in the Chicago Exhibition. Beside the large Exhibition there, there have been other large Exhibitions, notably the Exhibition in Paris. Our Commissioner in America was sent there to work, but it was uphill work, as he could get no one to handle our teas at all. They were despised and rejected, and nobody would look at them. He got a few leading tea merchants to take them up, however, and others saw that they had got hold of a good thing, and would have liked to follow their example, but the Commissioner's funds were limited. The cess at the time was small, and it was a good step when the Thirty Committee got it increased. When it was increased, look how the promotion went ahead. We were then told, make green tea; and a good thing it was too. Those who did so made a little money to keep them afloat and I would remind Mr. Thomas that had it not been for the cess, probably a great many estates would have been abandoned. (Hear, hear). I remember, and so does Mr. Thomas, when we felt as sure of making our fortunes by cinchona as we saw the stars in the heavens. When cinchona was booming, we were all going to make our fortunes; but we could not force cinchona into the world as we had been forcing tea. I remember when the Germany campaign was proposed, it was jeered at right and left; but the Thirty Committee thought otherwise. They took up the work, and what was the result? They had not got enough money, but we had an able man in Mr. Renton. What we gave him was a pittance, and on that pittance he had to go through the whole of the Continent of Europe. Still, what has he done? At one time—not ten years ago—you could scarcely buy tea on the Continent of Europe. It was sold in chemists' shops as a headache cure. (Laughter). That is a fact. It was not drunk on the Continent of Europe. Now, you may drink it in twenty houses where there was not one before. You can buy tea there—not exactly called Ceylon tea, and why? Because, it is too good and is taken to blend with the China stuff. It is sold as tea, though not as Ceylon tea, and our Continental Commissioner is hard-worked. It is like giving a manager a 700-acre estates and giving him a 200-acre pittance to manage it on. The comparison is odious. (Laughter). Now we have given Mr. Renton £10,000 this year, and he is now able to go on with his work and say to people, "I will give you little to start a tea house, and say" I will run the show for you for a month or two and see how you get on." Still our friend says we have done no good. What do the great tea buyers say about us, for instance Messrs. W. Jas. and Henry Thompson in their circular? If my friend reads the newspapers, he would see that they are constantly referring to the work the Ceylon planters are doing in pushing their teas in foreign lands. If we had had more money, our success would have been greater. I remember the time when a 50-cent cess was advocated. I myself supported it, though I could not very well afford it, but I felt it was the right thing to do, and I would do it yet. (Cheers).

The Chairman In Reply.

The CHAIRMAN :— I do not intend to say very much in winding up this discussion except this: I desire most emphatically to correct Mr. Thomas in saying that we looked upon Mr. Mackenzie as a failure. The Thirty Committee has arrived at no such conclusion at all, and I distinctly stated this in my opening speech. I told you what had been decided upon as clearly as I could, and at the present moment the Thirty Committee are awaiting results. I have no doubt whatever—although I have no return—that he has done excellent work for the island of Ceylon. He had to take the initiative and did really hard work when Ceylon tea was almost unknown on the Continent of America. As regards Mr. Thomas' remarks as to Mr. Rosling's advocating the abolition of the cess he never advocated that policy. He advocated the reduction of the cess. We are all ready to reduce the cess as far as we possibly can. There is no fun in taxing ourselves. We all like to make taxation as light as possible, but we want to have the power to force our business whenever it is necessary and whenever prices may go down. As for there being no reason given for recalling the cess, I can only conclude that Mr. Thomas does not read the newspapers, for if he did, he would have found His Excellency's despatch on the subject and Lord Elgin's reply—[Mr. Thomas: I saw them]—in which he gives reasons. I don't say I agree to the reasons. In fact, I thoroughly disagree with them. Lord Elgin bases his objection to the cess on the fact that there is a minority against it. He overlooks the fact that four-fifths of the planters are in favour of it. There never was a law yet—and Lord Elgin spoke of the cess as a law—that found universal approval. (Hear, hear). The party that has returned Lord Elgin to power does not represent the unanimous opinion of the country or even the great majority. I do not know what are the figures of the present Government, but the figures usually are that six-elevenths force their opinions upon the five-elevenths. That is to say, there is usually a majority of one-eleventh which taxes and makes laws for the rest [Mr. Thomas: That is for carrying on the Government]. This is, as I have said, a law. Lord Elgin himself described it as a law, and I do not understand, I must say, Lord Elgin's position in the matter—though probably he knows his business better than I, for it appears to me that he spoke of the law as not to be entertained, because there is a minority against it. He is going against the root of all laws and of all Government. As regards the portion of America in which the cess is not known, I can only say that we speed the cess as far as it goes. We did not intend the money to go over the whole continent, but as far as it goes it has been, as far as we can judge, of the best advantage to our community. I do not think it is necessary to detain you with further remarks on the subject. I now put the resolution to the meeting. (Cheers). The resolution was carried, 63 voting for and two against.

After a discussion the resolution was put to the meeting and carried unanimously.

The Rubber Estates and the Agency.

The CHAIRMAN :—A resolution "That pending the introduction of the above scheme, the acreage cultivated in rubber not only in bearing should pay 5 cents per acre instead of 10 cents towards the Coast Agency," was also carried.

This concluded the meeting.

The Coffee crop of Java is almost a failure, being only one-half of last year's, which was a very small crop; some of the Central American States and India will also have a much smaller quantity to export, so that though there cannot possibly be any shortage of common quantities, the kinds wanted most for the home trade will certainly not be abundant. The Costa Rica crop is turning out very inferior; heavy rains seems to have spoilt the beans just after flowering, and again at the time of gathering, so that some of the very best marks are sending Coffee of only ordinary quality. It is early yet to speak of the crop as a whole, but it is evident that really fine quality will be scarce and prices will in consequence be high, with a much greater margin between the medium and fine descriptions than is usually the case.

INDIAN TEA CESS COMMITTEE.**Bonus to encourage the Manufacture of Indian Green Tea.**

At the half-yearly meeting of the Indian Tea Cess Committee held on the 29th January 1907, it was resolved that a bonus of six pies per pound be offered on two million pounds of green tea to be manufactured on Indian estates, and to be exported during the year ending 31st March 1908.

In accordance with this resolution, the Executive Committee have framed the following rules:—

- (1) The bonus will be paid on green teas made in India and exported to foreign countries, including any part of the British Empire outside of India.
- (2) The Committee reserve the right to refuse payment of the bonus in any case where (after examination of the samples drawn under Rule 5) they consider the tea unsuitable from coarseness of leaf, error in manufacture, or unsound condition. No bonus will be paid on dust.
- (3) The Committee recommend those making green tea for the first time to submit samples of their early manufacture for examination. The leaf to be used for the manufacture of green tea should not be coarser than that ordinarily plucked for black tea manufacture.
- (4) When teas upon which bonus is claimed have arrived at port of shipment, samples must be drawn, and sent to the Committee; and on approval of these, and on proof of export, the bonus will be paid.
- (5) Proprietors or Agents of Gardens who are prepared to manufacture green tea during the season 1907, should fill up the accompanying form, and return it to the Secretary not later than 31st March, 1907.
- (6) Any dispute arising as to the interpretation or working of the foregoing Rules shall be referred to the Tribunal of Arbitration of the Bengal Chamber of Commerce to be determined in accordance with the Rules for the time being of the Tribunal.

INDIAN TEA ASSOCIATION, CALCUTTA.

Extract from abstract of the Proceedings of a Meeting of the General Committee held at Calcutta on the 22nd January 1907.

Correspondence with the Indian Tea Association, London.

—Letters dated 28th December 1906 and 14th January 1907 from the Secretary to the Indian Tea Association (London), having been circulated, were brought up for final consideration and disposal. The principal subjects dealt with in these letters were the following:—

- (a) *Ceylon Import Duty.*—In his letter of 4th January 1907, Sir James Buckingham acknowledged receipt of copy of letter from the Government of India to the Association, dated 4th December, stating that Lord Elgin is unwilling to re-open this question at present. Sir James Buckingham was to place this letter before his Committee at their next meeting, and he was also communicating it to Mr. J. D. Rees, to obtain his opinion on the advisability of again raising the question in the House of Commons.

The Committee decided to do nothing further in the meantime until Mr Rees's opinion had been obtained.

- (b) *Franco-British Exhibition, 1908.*—With his letter of 4th January, Sir James Buckingham sent a copy of a Circular regarding the Franco-British Exhibition proposed to be held in London in 1908.

The Committee noted with interest what was being done in connection with the proposed Exhibition.

United States Food and Drugs Act, 1906.—A letter of 8th January from the Indian Tea Cess Committee was to be recorded. With it were forwarded a letter of 7th December 1906 from Mr. Blechynden, the Tea Cess Committee's representative in America, and a copy of the Rules and Regulations for the enforcement of this Act. Mr. Blechynden advised that, so far as had been ascertained, the provisions of the Act would not affect importers of tea.

Tea Cess Committee.—A letter of 8th January from the Government of India asked the Association to submit the name of a gentleman to succeed Mr. A. Topping, whose resignation of his seat on the Indian Tea Cess Committee has been accepted. The Committee decided to consult with the London Association before making a recommendation, and accordingly agreed to wire to London for their opinion.

A letter from the Government of India of 10th January 1907 notified the appointment of Mr. Lockhart Smith to the vacancy caused in the Tea Cess Committee by the resignation of Mr. T. Traill. The letter was to be recorded.

Scientific Department.—A letter of 10th January from Dr. Mann was read. Dr. Mann asked to be allowed to publish a Technical Scientific paper on Red Rust of Tea in the Memoirs of the Department of Agriculture in India, and explained that the Government had offered to publish the work and bear all the expense connected with the preparation of the numerous coloured plates required. The Committee agreed to authorise Dr. Mann to accept the offer of the Government of India.

Extract from abstract of the Proceedings of a Meeting of the General Committee held on the 5th February 1907.

Correspondence with the Indian Tea Association, London.—Letter dated 11th January from the Secretary to the Indian Tea Association (London), which had been circulated, was before the Committee, and there was read his letter of 17th January.

Ceylon Import Duty.—Sir James Buckingham reported that he had heard from Mr. J. D. Rees, who wrote that when all the Tea Associations made their joint protest, it might be well to bring the matter up again.

The Committee presumed that Mr. Rees referred to a resolution passed at a meeting of the Darjeeling Planters' Association, on 27th October last, that the several Tea District Associations should be written to with a view to united action being taken in bringing to the notice of this Association and Government the injustice done to the producer of Indian Teas in the matter of the respective duties levied on teas imported into India and Ceylon. The Committee had not, so far, heard anything more of this proposal, and presumed that it is still under consideration. But they decided that in the meantime copies of the resolutions which they had received from the local Association should be forwarded to the London Association.

Franco-British Exhibition, 1908.—Sir James Buckingham forwarded further papers relating to this Exhibition, and these the Committee perused with interest.

Tea Cess Committee.—As arranged at 1st meeting, a wire was sent to the London Association intimating the resignation from the Cess Committee of Mr. A. Topping, and asking them to nominate his successor. A reply had been received nominating Mr. Lockhart Smith, who had already been appointed to succeed Mr. T. Traill. It was arranged, however, that Mr. Smith should represent the London Tea Association on the Cess Committee, and Mr. D. Youngson was to be recommended to the Government of India as the successor to Mr. Topping.

TEA.

The Glasgow Estate Co., Ltd., (Ceylon) declares a crop for 1906 of 4,000,408 lbs. tea off 620 acres in full and 80 in partial bearing. The average net price realised was 44·74 cents, or say 7½ annas, while the cost of the tea laid down in Colombo was 25·28 cents per lbs., or a little over 4 annas per lb. Dividend for the year 22 per cent.

Ceylon Green Teas.

THE FALLING OFF IN EXPORTS.

The "Ceylon Customs Returns" for the year 1906 shows that during the year 8,874,994 lbs. of green tea were shipped from the Island, Canada and the United States being the chief consumers. Compared with the previous year's exports, a slight rise in the quantity sent out is noted, but the drop from 1903, when Ceylon greens were at their height, is considerable. Comparative figures from previous Customs Returns are as follows:—

			lbs.
1902	..	..	2,602,882
1903	..	..	8,236,768
1904	..	..	5,394,849
1905	..	..	3,086,177
1906	..	..	3,784,994

The exports to the United States and Canada alone are :

		United States.	Canada.
		lbs.	lbs.
1902	..	1,264,303	736,534
1903	..	3,522,477	2,695,025
1904	..	46,907	1,584,838
1905	..	621,589	1,285,800
1906	..	601,470	1,763,966

Tea Trade with Russia.

THE LIMIT OF PRODUCTION.

In view of the recent revival of interest in Indian and Ceylon tea shares, a representative of the "Financial Times" called upon Messrs. Hancock Bros. and Co., of 28, Mincing-lane, for the purpose of learning their views as to the trade position. These, says our contemporary, were pretty much as follows:—

"The situation is an altogether extraordinary one, and opens out a very bright prospect for Indian and Ceylon tea companies, and particularly the latter. What it is had better be indicated by quoting figures. Here is the record of prices actually paid during the month of August last for Indian and Ceylon teas. The average price in the public sales for Indian teas was 7½d. per lb. for Ceylon tea 6½d. per lb. Now compare the mid-December prices following:—The average for Indian teas was 8d. per lb. and for Ceylon teas 8·66d. In the latter case the rise is 2d. p. r lb., and try to imagine the enormous difference that makes in the case of deliveries which mount up, as they have done for the last two years, to over 190 million lbs!"

"Well, what is the chief cause of the rise in price?" inquired our representative.

"Put in brief, the answer to that question is:—Shorter supplies from Ceylon and increased deliveries. Here is the last half-yearly report, issued on the 2nd instant, by the Tea Brokers' Association of London, for the period from June 1 to December 31, 1906. There you see that on December 31, 1905, the stock of Ceylon tea in bond was some 27,608,000 lbs.; on the corresponding date of 1906 the stocks amounted to no more than 19,812,000 lbs. The deliveries, however, are far from having reflected this movement, for the last half of 1904 they were 56,614,000 lbs.; for the last half of 1905 they amounted to 67,155,000 lbs. and for the last half of 1906 they advanced to 67,722,000 lbs. Thus, you see, the demand for Ceylon tea is steadily increasing, and it looks very much

as if we should not be able to meet the demand in 1907, for whereas the imports for the last half of 1905, as you see, stood at 64,386,000 lbs., they have fallen during the past six months to 58,296,000 lbs.

"Now under these circumstances, we think any shareholder in Ceylon tea companies would be very ill-advised to sell out at present in disgust at the hard times the tea trade seems to have been having for some years past. The prosperity now beginning will affect all companies, great and small, for it proceeds from quite general causes—namely, the taste of the various tea consumers, and not from any particular cause, such as the judicious management of any individual companies.

"Ceylon tea is, of course, largely drunk in England, though not so much as Indian tea, but it is America, Canada, Russia, and Germany where the rapid increase in consumption is taking place. Look at our Custom House returns. There you see our exports of tea have increased from 22,850,000 lbs in 1905 to 34,554,000 lbs. in 1906, and the three countries mentioned have been our chief customers, the bulk of the tea exported to them having been Indian and Ceylon. In addition to this traffic, direct exports from Colombo and Calcutta to other countries besides the kingdom are in an increasing ratio, leaving, naturally, less for this market. . . . Russia now bids fair to be an excellent customer for Ceylon tea."

"Then, what has caused the revolution in American taste?" inquired our representative.

"Partly the immigration of people who drink black tea—Irish, Scotch, and others"—was the answer. "Their taste has gradually come to prevail, and American retailers find they must give up their Japanese buying to please their customers, and when American business people once get a notion into their head, they do not hesitate to put their money on it, as you know. When they once begin, they do things with a rush, and during the past three or four months orders have increased from America."

With reference to the outlook for production, India, on account of its vast area of production, held the key of the market, but the Island of Ceylon was, from one point of view, in a more enviable position. "It looks as if Ceylon had now about reached the limit of its production. The interest in rubber has, of course, been great, and the planting of rubber trees has been engaged in vigorously by various proprietors of tea areas. The rubber tree, however, works to the detriment of the tea while planted among the tea bushes by exhausting the moisture in the soil and causing too dense shade, and the tea area of Ceylon will thus be greatly circumscribed. It is a question if it can be any further extended or if the tea product can be at all increased. The demand, however, for Ceylon tea is certainly on the increase, and so the price must rise, and with it, it is only reasonable to believe, the price of Ceylon Tea shares all round."

Coffee planters in Jamaica have been advised to extend the area of coffee cultivation. It is remarked that "coffee planted now cannot come in for four or five years, and by that time the increased consumption which has been promoted by the long prevalence of low prices, added to the possible, if not probable, diminution of supplies from South America, may combine to make the crop once more a very profitable one. At any rate it is not likely to be under any greater disadvantage than at present and it is not subject to great loss by hurricanes."

The Kalutara Planters' Association, Ceylon, represents some 15,665 acres of tea. The tea estimate for—

			Black tea.	Green tea.	Total.
1907 is	...	...	6,367,000	1,305,000	7,672,000
1907 was	...	...	7,180,000	623,000	7,803,000
Total amount secured in 1906 was			6,282,275	1,188,401	7,465,676
Shortage—			885,834.		

Insect Pests of Tea and Rubber.

M. E. Ernest Green, Government Entomologist, Ceylon, contributes the following to the January issue of the Colombo Agricultural Society Magazine:—

TEA TORTRIX.

The 'Tea Tortrix' (*Capua coffeavia*), which has been a serious pest in Maskeliya for several years, is reported to have almost disappeared from that district. An occasional caterpillar can be found, but the extensive fields of blighted bushes are no longer apparent. This relief is to be accounted for partly by recent inclement weather, but more particularly to the increase of the natural enemies of the insect. The small Ichneumonid fly, described on p. 194 of the *Tropical Agriculturist* Vol. XXV. No. 1, (July, 1905) is said to have been very busy in the infected fields.

The Tortrix pest seems to have moved on to other localities. I have received reports of damage from the Hattton and Nawlapitiya districts. Living specimens of the parasite should be imported to these districts from Maskeliya, where it has apparently gained the mastery and will be in danger of dying out for want of food.

TEA NETTLE-GRUB.

An outbreak of the 'Morowak-korule Nettle-grub' (*Thosca recta*) has occurred on an estate near Kandy. The caterpillars had completely defoliated the bushes over the infected area. As this pest has on several occasions proved a very troublesome one to check, strong measures were recommended, namely, the immediate pruning of the infested bushes and the destruction of the prunings by fire. A belt of quicklime round the pruned area will help to keep the caterpillars from straying to the surrounding fields.

TEA APHIS.

A correspondent has sent me some young tea shoots thickly infected by the common tea aphis (*Ceylonia thevecola*, Buckton) and expresses some alarm at the prevalence of this insect on his tea. This is a pest of really little importance and requires no special treatment. It has so many natural enemies that it is always very rapidly checked. The specimens submitted were already badly parasitized, and I felt confident in predicting that within a week or ten days' time there would be some difficulty in finding a single living insect in the fields now so strongly infested.

CEARÁ SEED WORMS.

The following letter referring to the failure of Ceará seeds after planting, has been received from an Indian correspondent:—"I have to report that some Ceará rubber seed treated in the usual manner namely, that of filing—was sown in boxes raised from the ground to prevent the incursion of insect pests. A very small proportion has sprouted and the remainder are, I find, being eaten by hundreds of small white hair-like 'hoolas' (worms?) which seem to have bred in the seed. These 'hoolas' have got dark heads. The seed, on being opened, is alive with them. The soil has been treated repeatedly with strong kerosene emulsion and, while all other insects have been killed thereby, the treatment has had no effect on these pests. I shall be glad to hear from you as to what I should do, and at the same time you might inform me if this is a known rubber pest."

I replied that "This is

NOT A RECOGNISED RUBBER PEST

and is probably not confined to Ceará seeds. The worms must have entered the seed from the soil after they had been filed. Possibly the filing was too deep and had injured the kernel of the seed. I would suggest baking the soil before planting the seeds. But as this treatment will more or less sterilize the soil, the addition of some suitable manure will be necessary after the germination of the seeds. Well rotted leaf mould and old cattle or stable manure (reduced to an earthy consistency) might then be spread upon the soil or dibbled into it. This will bring back a supply of the necessary nitrifying bacteria which will not be introduced by purely artificial manures."

Railways in Planting Districts.

The following speech was delivered by the Hon'ble Mr. S. M. Fraser, C.E., Chief Commissioner of Coorg, in reply to certain addresses presented to him at Virajpet on the 18th February 1907.

GENTLEMEN,

It will be convenient if I give a joint reply to the addresses which have been presented to me by the representatives of the Mercara, Yedonalkad and Kiggatnad Taluks and of the South Coorg Agricultural Association on the subject of the proposed Mysore, Coorg and Tellicherry Railway scheme. I welcome this opportunity of explaining to you exactly how this question now stands and of telling you what the local Administration has been doing in the matter of improved communication for the Province of Coorg. In the first place let me sketch briefly the history of the railway project. The survey of the two lines, Arsikere-Mangalore and Mysore-Tellicherry, was carried out in 1899 under the orders of the Government of Madras, the cost being divided between the Government of India and the Mysore Durbar. Subsequently Mr. Puttanna Chetty, now a member of the Mysore Council, was deputed to report on the probable traffic receipts of the two lines. The information which resulted may be thus summarised, as regards the Mysore-Tellicherry project.

The total length of the line would be 144 miles, comprising the following sections estimated to cost in round figures (on a 2 feet 6 inches gauge).

Mysore	...	...	56 miles	...	23 lakhs.
Coorg	...	...	33 „	...	17 „
Malabar	...	...	55 „	...	45 „
Total...			144 miles	...	85 lakhs

A later estimate places the probable cost at roughly 90 lakhs, and you will thus see that the framers of the addresses are hardly correct in terming the project a small one.

On the basis of the traffic receipts as worked out by Mr. Puttanna Chetty, the return on the capital outlay, it was calculated, would barely exceed 3 per cent. The scheme was submitted to the Government of India, who, in 1902, expressed regret that the limited programme for railway expenditure in all India had so many claims on it from localities which could show better returns than those promised by the Mysore-Tellicherry project, that there was little prospect of its finding a place in that programme for many years to come, unless something could be done to show that it deserved a higher place than seemed to be due to it. The Government of India then went on to enquire whether the Mysore Durbar, the Malabar District Board and the Coorg Administration would be willing to guarantee interest on the cost of constructing their respective portions of the line, adding, in the case of Coorg, the query whether in view of the special value of the railway to that province, interest would further be guaranteed to such extent as might be necessary to cover such part of the interest on the entire line as might not be covered by guarantee offered by the other interested parties. The reply to these questions was as follows:—

The Mysore Durbar declined to offer a guarantee, their attitude being one of indifference in view of more important projects. The District Board of Malabar was not willing to tax itself in support of the railway.

With regard to Coorg, it was pointed out that while a limited guarantee might be unobjectionable, the province had not the financial independence entitling it to offer any guarantee; the Planters, however, were willing to guarantee a reasonable proportion of the interest on the capital cost within Coorg limits. In these circumstances the support offered was considered to amount to practically nothing and the matter was postponed by the Madras Government until conditions appeared more favourable.

The question, however, was not allowed by the Coorg Planters' Association to drop. With the local Administration, they recognized that the question of getting a railway was narrowed to a clear issue, *viz.*, the willingness of one of

the two territorial Administrations on either side of Coorg, *viz.*, Mysore and Malabar, to join Coorg in guaranteeing the interest on the cost of construction of that section of the railway, which falls within their respective limits. Further enquiries were accordingly instituted but it was ascertained that neither the Durbar nor the District Board of Malabar were in a position to support the line and so that matter rested at the time when I assumed the Chief Commissionership in November 1905. Before proceeding to mention what has been attempted since that date, it will make the position still clearer if we refer to the reasons on which the attitude of the Government of India towards this line is based, and for this purpose I cannot do better than quote from the reply which was returned by the Viceroy, Lord Curzon, on 8th August 1902, to the Coorg Planters' address. After acknowledging the skill with which the arguments for the line had been marshalled in the address, His Excellency proceeded to say:—

"That you are much nearer in Coorg to the West than to the East Coast, that it would be an advantage to be placed in direct railway connection with your factories and with your seaport at Tellicherry, that some of the resources of Coorg would thereby be more developed—all these are propositions which I readily endorse. They bring us, however, only to the doorstep of the main question, which is this: Will the Mysore-Tellicherry railroad be the best means of effecting your objects? If it be so, how is the railway to be financed? Gentlemen, we have in the Government of India what we call a railway programme, the limits of which are fixed annually by the Secretary of State, within which all railway projects involving either direct expenditure or any financial liability to Indian revenues are included, and which is made up from year to year upon a careful comparison of the railway needs of the whole country and of the remunerative aspects of the different undertakings. Now the most sanguine estimates of the Tellicherry line do not lead us to expect an initial return of more than 3 per cent. on the capital spent in construction. There are many unexecuted railroads in other parts of India that promise better returns than this; and there are many other, without any disparagement to Coorg, which are far more urgently required. I do not think, therefore, that the line which you advocate is likely to work its way up into the Government programme for some little time to come."

Lord Curzon then went on to point out that in cases where Government is unable to find the money, they adopt a very sympathetic attitude towards any independent proposals for constructing lines by outside assistance, concluding as follows:—

"What I have said comes to this, that, if you wait for the line to take its place in the Government programme, there will probably be some delay: but that if you want to hurry on the construction, then it is for the various interested administrations or communities to give a practical proof of their confidence in the commercial character of the undertaking by offering to back it in whole or in part themselves."

I have quoted, at length, from Lord Curzon's speech, because his words tersely but fully explain the permanent factors of the problem. As you have seen, the line in question must be regarded as a purely commercial undertaking—it is not a famine or a protective work—and we had to persuade the three parties interested, *viz.*, Malabar (*i.e.*, the Government of Madras), the Mysore Durbar, and ourselves, that the line would be one which would ultimately pay 4% on its cost, and meanwhile would produce earnings that fall short of 4% by so small a sum as to make the guarantee of the difference an undertaking free from undue risk. Obviously the first thing was to begin with ourselves and, after ascertaining whether there is good reason for the faith expressed locally in the enterprise, to see whether the people of Coorg generally should join with the planters in taxing themselves to meet the necessary guarantee. Accordingly, after meeting the representatives of the Coorg Planters' Association, in February 1906, I took steps to find out whether Mr. Puttanna Chetty's traffic estimates framed in 1900 were considered by the local authorities concerned still to hold good, and although no detailed check of the figures was possible without appointing another

officer to collect and examine the statistics of the present traffic, the general result was that Mr. Puttanna Chetty's figures alike for Mysore and Malabar and Coorg were pronounced to represent with substantial accuracy the traffic still to be expected if the line were constructed. Further, the Planters' Association furnished, at my request, a memorandum on the prospects of the province, giving reasons for their belief that the exportable produce of Coorg was likely to increase steadily in the near future. The complete failure of the coffee crop during the past season—and it has always been recognised that the prospects of the line depend mainly upon the coffee industry—show, I am sorry to say, how liable to unforeseen variation are the most scientifically prepared estimates of agricultural produce.

The estimated return of the railway having been thus found sufficiently reliable to serve as a working basis, the next step was to ascertain how far the people of Coorg generally were willing to tax themselves by way of guaranteeing the minimum interest required. As you know, copies of a memorandum, giving the estimated figures, were circulated in English and Canarese, meetings were held in the taluks and at Mercara, and, briefly, the result may be said to be that the majority of the intelligent classes of the population were found to be ready to pay a cess on land revenue assessment, in order to meet the difference between the net profits of the railway and 4% on the capital outlay, subject, however to a general understanding that the cess would not exceed 2 annas in the rupee on coffee lands and 1 anna in the rupee on wet lands. So far then as Coorg itself was concerned all that was possible was done, I think, to prepare the way for practical support to the project, preliminary to that fresh detailed examination of the traffic prospects which could not be undertaken until the two predominant partners in the scheme were ready to co-operate with their smaller neighbour. So far, however, as Malabar and Mysore are concerned, the position unfortunately has not changed for the better during the past twelve months. In fact it is simplified by the elimination of all prospects of any immediate assistance from Madras.

Some of you may have read in the papers that in a letter from the Secretary to Government, P. W. Department, Railways, to the Secretary, United Planters' Association of Southern India, with reference to a Resolution of that body urging the early construction of the

- (i) Dindigul-Pollachi-Palghat;
- (ii) Mysore-Coorg-Tellicherry; and
- (iii) Arsikere-Mangalore railways,

the U. P. Association were informed that "owing to the numerous claims on imperial funds for new lines all over India and for completing the equipment in rolling stock on open lines, there seems to be little prospect of an early place on the imperial programme of construction being found for the lines referred to." And with regard to the two projects for connecting Mysore with the West Coast, it is specially added that if a place in the imperial programme is eventually found for them, it will only be after many years and that consequently their early construction can only be achieved by private enterprise. In view of this final decision of the Madras Government, it is clear that the only chance of the line being constructed lies in the Mysore Durbar being able and willing to find the money in order to build, not merely their own section of the line, but also a considerable part of the more expensive portion which lies in British Territory. Whether the State will find it to their interest to undertake so large a project at some future date, it is not for me to express an opinion, but I think that you may safely assume that, with other schemes taking a higher place in their railway programme, it will not be prudent to calculate on the Durbar building your line for you. This estimate of the situation will, I fear, be a great disappointment to Coorg, which has striven so unitedly to help itself in a matter so important to its future prosperity, but it would be foolish in us as practical men to refuse to recognise the force of circumstances over which we have no control. Although, however, all hope of a railway in the near future must, in my opinion, be abandoned, it by no means follows that we are to be left without improved communications and facilities for the export and import of goods. Foreseeing the possible collapse of the railway

scheme, the local Administration has been making enquiries in other directions, and the possibility of a service of motor cars and motor lorries, and of a mono-rail line between Coorg and Mysore has been under investigation during the past year. The former proves to offer little chance of success, but the mono-rail, I am sanguine enough to think, is both more attainable and better calculated to offer a fair substitute for a railway, as well for the transport of heavy goods and passengers. The mono-rail has been but recently introduced into India, and I have as yet no definite scheme to lay before you for its construction in Coorg, but there is reason to believe that this mode of traction will be a success, and, so far as my present information goes, the gradients between Mysore and South Coorg present no obstacle to its construction along the existing highroad. As a substitute for the long-hoped-for railway, I cannot expect you to welcome the mono-rail with enthusiasm, but so far from permanently blocking the chance of Coorg obtaining the superior form of communication, it may, I think, be regarded as a precursor to the latter which will prove and develop the traffic in a way that may hereafter justify the construction of a regular railway as a safe commercial venture. But, however this may turn out, in the meantime, remember that it will be a vast improvement on the bullock cart which now forms your only means of transport to the railhead at Mysore.

The all-important subject of improved communications will, you may be assured, receive the best attention of the local Administration, but quite apart from the hope of the Province being benefited in that direction, I wish to deprecate the hopeless tone pervading some of your addresses, in which I find you saying that it is of little or no use your expending your capital and energies on the exploitation of new products or indeed arranging to further extend the cultivation of old ones under present conditions. For such a helpless attitude, I say with confidence, there is no justification in the present state of your country. On the contrary, there are, in my opinion, many points in the recent development of Coorg which hold out bright hopes for the future prosperity of this fertile and highly favoured Province.

The acreage under rubber in the Kelani Valley, Ceylon, is considerably over 20,000.

In the Passara District of Ceylon the acreage planted is, as accurately as can be ascertained, as follows:—Rubber growing alone in clearings 3,728 acres; in tea 2,516 acres; in cacao 1,301; in other products 3; belonging to a non-member of the Association, 50 acres; total acreage planted 7,598. The yield from the older trees now being tapped is entirely satisfactory; the growth of the plants in all clearings is very good. The soil in Lower Uva proves eminently suited to this product.

The area in the Kurunegala District is estimated at 9,000 acres, and further extensions are going rapidly.

At present there are no less than 1,800 acres under rubber alone, under the Weyganga Company at Ratnapura, and yearly an addition of 1,500 acres will be made till it reaches up to 5,000 acres. Rubber also is interplanted on many tea plantations.

With reference to the ravages of *Hemileia vastatrix* in Ceylon, Madagascar, Réunion, etc., it is noted that the various means that have been tried to combat it include the destruction of the affected foliage, spraying and fumigating diseased plants, the influence of location on the disease, resistant varieties, etc. Spraying was found to be effective under certain conditions, but it is often so expensive as not to be economically advantageous. Liberian coffee and some Java and other hybrids seem to be quite resistant. Improved culture seems to be valuable in rendering the plants less liable to injury. Where Arabian varieties are grown, the plantings should not be made in situations where there is a lack of rainfall, selection should be made of vigorous plants from the nursery, and attention paid to the choice of fertilisers and the keeping down of weeds.

OFFICIAL PAPERS.

The Ceylon Tea Cess Despatches.

The following are the despatches which have passed between H. E. the Governor and the Secretary for the Colonies on the above subject:—

Downing Street, 27th July, 1906.

Ceylon, No. 809.

Sir.—I have the honour to acknowledge the receipt of your despatch No. 358 of June 27th, in which you enclosed copies of letters from the Secretary of the "Thirty Committee" with regard to the Ceylon Tea Cess.

2. You do not state what are your own views on the desirability of the retention of this tax and I should be glad of an expression of your opinion. I have, etc.

(Signed) ELGIN.

Governor Sir H. A. Blake, G. C. M. G., &c.

The Queen's House, Colombo, Ceylon, 20th August, 1906.

No. 453, Miscellaneous.

My Lord,—I have the honour to acknowledge receipt of Your Lordship's despatch No. 807 of 27th July requesting an expression of my opinion as to the desirability of the retention of the Ceylon Tea Cess.

2. This Cess is collected as an export duty and handed over to a committee of the Planters' Association at the representation of which body the cess in its present form was imposed by Ordinance 4 of 1894.

3. While section 3 of that Ordinance made the disposal of the proceeds of the levy by the Joint Committee, the Planters' Association and the Ceylon Chamber of Commerce, subject to the approval of the Governor in Executive Council, I am not aware that such approval has ever been withheld or that the Governor in Executive Council has ever gone into the intricacies of the Trade advertisement of tea.

My opinion as to the desirability of the retention of the cess is therefore given not on points upon which I cannot pretend to have a special expert knowledge, but on general principles. The cess was imposed as a ready means of collecting funds for the purpose of the Tea Planting Association; which funds are placed at the disposal of a Committee of the Association. A certain number of tea planters object to the payment of this cess on grounds that seem to them sufficient. If those planters are by themselves, or through their local managers, members of the Association, they should, in my opinion, be bound by the decision of the majority of the body to which they belong of their own volition.

But the position of owners of tea properties who have not elected to join the Planters' Association is different, for their property is assessed, not for the purposes of the general community, but for advertising purposes of which they do not approve—settled, not by the Legislature, but by a Planters' Association to which they do not belong.

In such a case as this, I consider that the independent planter has a grievance and that he should be relieved of the compulsory payment of the cess by rebate or otherwise. The number of such independent planters is very small, for the advantages of membership of the Planters' Association are considerable.

Your Lordship will, I hope, understand why in my despatch No. 358 I confined myself to forwarding the opinion of the large majority of the members of the Planters' Association.—I have etc.

(Signed) H. A. BLAKE, Governor.

Downing Street, 19th October, 1906.

Sir,—I have the honor to acknowledge the receipt of your despatch No. 455 of the 20th August with regard to the retention of the Ceylon Tea Cess.

I concur generally in the views which you express but I do not think that it would be practicable to retain the cess and exempt from its payment those who do not belong to the Planters' Association. It is difficult to defend a law which, for the purposes of a particular industry, taxes a dissenting minority of a class at the wish of the majority of the class, even though the object of the tax is intended to be, and so far as I am aware may be, in the interests of the industry as a whole.

I gather from the Ceylon newspapers that the "Thirty Committee" have decided to recommend that the tax should be reduced to 20 cents per 100 lb., and are thus of their own accord initiating a change of policy. The objects of the Committee are doubtless quite legitimate, but they are essentially matters for private enterprise, and in view of the increasing opposition to the cess, I think that the time has come for the Government to give notice that after a certain date—say not exceeding two years—any law of the kind must disappear and the majority of those interested in the tea industry must be left to raise the funds which they require without the intervention of the Government.—I have etc.

(Signed) ELGIN.

Governor Sir H. A. Blake, G. C. M. G., &c. &c. &c.

Spike Disease in Sandal.

A Mysore G. O. Revenue No. R. 7493—Pt. 24,06-10, dated 18th February 1907, says :—

It is hereby notified for general information that the Government of His Highness the Maharaja of Mysore are prepared to pay a reward of ten thousand rupees to any one who will discover the cause of spike disease among sandal trees and suggest a thorough and effective and at the same time a cheap and easily applicable remedy for its eradication. This offer will be open for a period of three years from the date of this notification.

2. Every applicant for the above reward must forward his report of investigation, accompanied by microscopic slides, drawings, etc., to the Secretary to the Government of His Highness the Maharaja of Mysore, General and Revenue Departments. The following are the conditions to be satisfied before any claim for the reward can be admitted:—

- (1) The cause of the disease must be definitely and clearly determined.
- (2) An effective and cheap remedy, easy of application, must be prescribed.
- (3) The remedy should be such as would perceptibly check within a year the spread of the disease.

All claims will be submitted to the decision of a committee of not less than three specialists, including Forest Officers, to be appointed by Government; and the decision of the committee or of a majority of its members will be final.

3. Persons desirous of investigating the subject may obtain from the Conservator of Forests in Mysore copies of a printed compilation of important and useful papers bearing on the subject of the eradication of spike disease.

Last year 5,768 acres of land were sold in the Kalutara District of Ceylon, realising Rs.2,92,184, and this year 20,407 acres realising Rs.11,35,990, making a total acreage sold during the last two years to be 26,175 acres, which fetched Rs.14,28,174. Nearly all this acreage was bought to be opened up in rubber, and most of it will probably be planted by the end of next year. The acreage in rubber alone is 14,278 acres against 6,088 last year, an increase of 8,240 acres, of which increase the new estates joining the Association represent 5,981 planted in rubber 195,768 lbs., or 87½ tons of rubber have been harvested this year against 101,918 lbs. last year. The estimate for 1907 is 252,750 lbs., or solid 115½ tons. Prices have been well maintained. It is estimated Rs.6,00,000 has been paid to Sinhalese in wages during the year.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED,

VOL. II. No. 8.]

APRIL, 1907.

[PRICE AS. 2.

THE U. P. A. S. I.

(INCORPORATED.)

In the March number reference was made to certain subjects which the *ex-Chairman*, Mr. J. A. Harris, had brought prominently under the notice of the Council of the Association. Early in the same month, Mr. Aylmer Martin, the present Chairman, made mention of these subjects and expressed a desire to know what action, if any, the Council wished to take with respect to them, *viz.*—

- (1) Advertising Coffee,
- (2) Rubber lands,
- (3) Railways,
- (4) Scientific Officer,
- (5) U. P. A. S. I. Finances.

The following views have been expressed :

ADVERTISING COFFEE.

Wynaad Planters' Association:—The implied suggestion that Planters' should find the necessary funds for further advertisement of Coffee met with no support from this Association, the members of which are not willing to subscribe funds for that purpose.

Kanan Devan Planters' Association:—As the industry is a small and diminishing one in this District, are not prepared to support financially any scheme for advertising.

RUBBER LANDS.

Wynaad Planters' Association:—Not personally interested in this question at the present time, although quite willing to assist their fellow-planters in other Districts, if any way be pointed out in which assistance can be given.

Kanan Devan Planters' Association:—The District is not directly concerned but would give its general support to other Districts that are more interested. The Association would like to know, however, if these Districts have any definite proposal to put forward.

RAILWAYS.

Wynaad Planters' Association:—Not personally interested in this question at the present moment, although quite willing to assist their fellow-planters in other Districts, if any way in which they can be of assistance be pointed out.

Kanan Devan Planters' Association:—We understood that the Dindigul-Pollachi-Palghat line was first on the list for construction. As this line is of importance to several planting Districts, we think it should be pressed for first.

SCIENTIFIC OFFICER.

Wynaad Planters' Association:—The Association are anxious that this matter should be pushed forward. While thinking that no single man will be able to deal with the many different products grown in Southern India, they are anxious a start should be made.

[The position at present is that the Hon. Secretary has received, so far, promises of subscriptions amounting to Rs.260 per annum for five years, and hopes that this will be increased after a reference has been made to all members of the Association].

Kanan Devan Planters' Association:—This District has already got its own Scientific Officer and is not prepared to give financial support to any general scheme.

U. P. A. S. I. FINANCES.

Wynaad Planters' Association:—As pointed out by Mr. Harris, the loss of funds by the failure of Messrs. Arbuthnot & Co. need not affect the present working of the U. P. A. S. I. and the future can be left till the Conference at Bangalore considers it. "In the meantime we most strongly deprecate any expenditure being incurred account recovery of dividends from Messrs. Arbuthnot & Co.'s insolvency, such dividends will probably be very small and not increased by any expenditure we may make."

Kanan Devan Planters' Association:—Recognize the importance of not curtailing the present sphere of action and hope to continue present subscription.

The Council.

As he is leaving shortly for England, Mr. W. H. Sprott desires to place his resignation as one of the Councillors of the U. P. A. S. I. in the hands of the Council.

Acceptance of this resignation does not create a vacancy, as Mr. Sprott is a Councillor by virtue of the fact that he was Chairman last year.

The Tea Cess Committee.

Votes having been recorded in favour of the appointment of Mr. P. R. Buchanan as a member of the Indian Tea Cess Committee in succession to Mr. George Romilly, the Government of India were notified that this Association recommends the appointment of Mr. Buchanan.

Notification No. 2629-1 of the Government of India, Department of Commerce and Industry Customs—dated 21st March 1907 announces that:

In exercise of the powers conferred by Sections' 4, Sub-Section (3), of the Indian Tea Cess Act, 1903 (IX. of 1903), the Governor General in Council is pleased, on the recommendation of the United Planters' Association of Southern India, to appoint Mr. P. R. Buchanan to fill the vacancy on the Indian Tea Cess Committee caused by the resignation of Mr. George Romilly.

Madras Planters' Labour Act.

The Madras Government have recorded the following reports from the District Magistrate of Malabar and the Nilgiris on the working of the Madras Planters' Labour Act, 1903, and have requested the District Magistrates to state in future reports the number of estates in which criminal prosecutions arose and where the number in any estate is noticeable to give their opinion as to the special causes which led to the enforcement of the law.

WYNAAD REPORT

From A. R. Knapp, Esq., I.C.S., Acting District Magistrate, Malabar, Calicut, the 7th February 1907.

With reference to Government Memorandum No. 4272-3, dated 1st February 1907, I have the honour to submit my report on the working of the Planters' Labour Act, 1903, in the Wynaad for the year 1906.

2. The Sub-Divisional, Tahsildar and Sarishtadar Magistrates of Wynaad tried no cases under the Act. In the Court of the Sub-Magistrate of Vayittiri, 191 cases were filed during the year as against 98 cases in the previous year as shown below:—

	Section	Section	Section	Section	Total
	23.	24.	25.	26.	
1906	..	124	66	1	191
1905	..	87	60	..	98

The increase is due to cases being instituted throughout the year, whereas in 1906 the cases filed only from June. One hundred and twenty five of the cases (under Sections 24 and 36) were complaints by planters against defaulting maistries and the remaining 66 (under Section 30) were complaints of maistries against labourers.

3. Eighteen estates contributed to the cases, as against 11 in the previous year. One planter presented no less than 62 complaints and his maistries 27. In a few cases sentences of imprisonment were cancelled at the request of the complainants on the labourers agreeing to work as provided for in Section 83, clauses 1 and 2, and in many of the remaining cases the provisions of Section 85 were resorted to.
4. I consider that the working of the Act was successful during the year. If the amendments referred to in Government Memorandum No. 4272-1 of September 1906 and in my letter No. 1, 1806-M., dated 23rd October 1906, are carried out, the usefulness of the Act will in my opinion be much increased.

NILGIRI REPORT

From L. E. Buckley, Esq., I.C.S., District Magistrate, the Nilgiris, dated the 8th February 1907.

I have the honour to report on the working of the Planters' Labour Act for 1906.

2. Owing to the poor season and high prices, there was no difficulty in recruiting labour.
3. On the plateau, numbers of coolies arrived on estates without legal contracts; some executed them on arrival, but large numbers worked their time without a legal contract. Coolies recruited for Gudalur taluk as a rule executed legal contracts before arrival.
4. The number of prosecutions under the Act increased from 205 to 577. The bulk of them was contributed by the Gudalur taluk. In the greater number of cases the coolies could not be traced: where they could be traced, nearly all have consented to return to work; in comparatively few cases was punishment inflicted.
5. The health of the coolies in the District has been generally good, and from my enquiries I believe they have received fair treatment. The destitute coolies found on the roads all came from the Malabar-Wynaad.

PROPOSED AMENDMENT.

Writing on the 22nd March, the Acting Chief Secretary to the Government of Madras, Judicial Department, says:—

"I am directed to invite attention to the proceedings of the Madras Government, No. 558, Judicial, dated the 28th March 1906, regarding certain amendments to the Madras Planters' Labour Act, 1908.

2. In paragraph of 6 that proceedings, this Government recognized that section 29 of the Act was defective in that it did not give sufficient power of taking criminal proceedings against a deserting or recalcitrant labourer where the labourer had been engaged by the maistry and the maistry neglected to prosecute. The Government expressed the opinion that provision might be made in the Act to the effect that complaint may be laid by the planter, as well as by the maistry where labourers under a direct engagement with a maistry to work on the planter's estate have refused or ceased to work in contravention of their engagement with the maistry. It has now been pointed out to this Government that throughout the Act, where exceptional remedies are given to the employer against the employee, care has been taken to give the employee a similar remedy against his employer and that, if the planter is to be allowed to prosecute the labourers for desertion, it is but reasonable that the labourer should

be allowed, under section 21, to recover from the planter wages wrongfully withheld by his employer (i. e. the maistry) and under section 18, to absent himself from his work without forfeiting his wages to prefer any complaint he has to make against the planter. The Governor in Council is inclined to agree with this view; but before finally adopting the suggestion, the Government would be glad to have the opinion of the United Planters' Association, of Southern India, whether they would prefer to give up the amendment of section 29 or to approve such amendment with the reciprocal obligations now suggested."

Ceylon Import Duty on Tea.

Writing on the 9th instant, Mr. W. Skinner says:—

"In response to the request of the Darjeeling Planters' Association, supported by your Association, dated 14th November 1906, I have drawn out a Draft letter addressed to the Indian Tea Association, which I enclose for your approval, or if necessary amendment.

It is proposed so soon as the Draft has been passed by all Tea Associations in India to make a fair copy which will go round for signatures and then be submitted to the Indian Tea Association, Calcutta, for action.

Mr. J. D. Rees is ready to press the matter in the House so soon as the joint protest is out.

I shall be obliged by your favouring me with your views on the letter at an early date."

[INCLOSED DRAFT.]

Bindukuri P. O., Assam.

Feb. 23rd 1907.

To the Secretary, Indian Tea Association, Calcutta.

CEYLON IMPORT DUTY ON TEA.

Dear Sir,

We, as representing the United Tea Associations of India, consider that the time has arrived for actively pressing on the attention of the Secretary of State for India, through the Government of India, the injustice that the Tea Industry of India suffers from the Import Duty imposed by Ceylon on Tea from India entering that Colony.

We are aware of the representations made by you from time to time since the year 1901, and note with considerable regret that these representations, though forcibly and ably put, have failed in securing the relief asked for.

Whilst opinion in Ceylon, formerly almost entirely hostile to any reduction, is steadily growing as to the unwisdom of the present Duty both in the Press, in official utterances, and amongst growers, and while it is admitted that the Duty is not aimed at specially to exclude Indian Teas, but mainly to secure absolute freedom from the importation of exhausted and low class tea from China, Japan, and elsewhere which could be used to the detriment of Ceylon; still, we submit that to meet this, there should be no difficulty in providing means to establish a system of efficient inspection by which only sound teas could enter the Colombo market or blending warehouses. Such means are found practicable in other British Colonies and could equally be applied to Ceylon.

We claim that where the Ceylon Industry is so dependent on India for the supply of labour and where every facility for obtaining it is conceded by the Madras Government, the imposition of this Duty—essentially and admittedly protective—against the country which so helps to keep its industry alive is both unjust and indefensible.

We can in justice claim from our own Government at least the same measure of support and protection as Ceylon growers enjoy from theirs where great weight is attached to their opinion, even when the reasons brought forward are not entirely endorsed by His Excellency the

Governor, and we cannot but think that if the matter is brought to the notice of the Secretary of State with sufficient force, that relief will be afforded.

The fact that Teas from Ceylon are being imported into India in increasingly large quantities and are competing in Markets made by Indian enterprise, while a great deal of the tea sent to India for sale is of the very sort that Ceylon desires to exclude from the Island, is sufficient to show the protective and unfair nature of the Duty and its injustice to India.

The Government of India has refused to entertain the proposal to impose a reciprocal Duty on Teas from Ceylon, but we may ask if it were possible for the Government of India to resist the unequal Duty offered by France to Brazil against Indian Coffee by the threat that it would retaliate by penalising the French imports into India, why should it not be equally possible to raise the duty on Tea entering India from Ceylon, or place Ceylon Labour emigration under similar regulations as those for Natal, Mauritius, and other Colonies, until the excessive duty is removed.

In conclusion, we would urge renewed action to redress an injustice long complained of, and one that has brought this united protest from a great Industry in India.

We remain,

Dear Sir,

Your most obedient servants

Notes on Rubber Cultivation.

"Notes on Rubber Cultivation" is the title of a neat little volume, the authors of which are Lient-Colonel J. A. Wyllie, F.R.C.S., I.A., and Senhor Octaviano Guilherme Ferreira, M.R.A.S., and published by Messrs. Higginbotham & Co., of Madras. The former gentleman will be remembered as having had a good deal to do with the introduction of rubber cultivation into Burma, and as having been at one time in charge of the Government Rubber Plantations at Kambé, Rangoon. In the preface to the book it is stated that the notes were originally compiled for publication in Portuguese only, in view of certain arrangements made for the grant of lands in the Novas Conquestas of Portuguese India for cotton-growing-arrangements which were sufficiently ample in their scope to cover the case of India-rubber as well. The bulk of the notes, may, however, with but little modification, be applied to the case of the surrounding British districts, and for this reason an English version has been published simultaneously with the Portuguese. The Notes "do not pretend to be much more than a resumé of results recorded by others, with here and there an observation based on personal experience." They are illustrated with sixteen full page plates, a fair proportion of which relate to cultivation in Ceylon.

Though the book makes no pretence of giving full information, it certainly contains a great deal of valuable matter, and as much of this is acknowledged to various scientists and others in Ceylon, India, and elsewhere, the reader should have no difficulty in deciding to what extent he can receive the statements made as authoritative. In these early days of rubber cultivation in the East, it is well to remember that implicit reliance cannot be placed on everything that has been written on the subject, and that even the results of various experiments made, or part-made, under scientific control must in certain cases be accepted only tentatively, pending the completion of further tests. While this reservation is made, however, there can be no doubt as to the usefulness of the present little work, the authors of which have not attempted to impress the reader with a belief in its infallibility or completeness, but have laboriously compiled a mass of information. They have afforded also certain indications as to the probable reliability of such as relates to debatable points; and what they say is calculated to make planters think and experiment for themselves, while giving them the advantage of certain "pointers."

The authors discuss the nature of India-rubber, and of guttapercha; they touch upon certain true and pseudo guttas and rubber; and discuss briefly the problem of the future of production and price. Their general conclusions in these introductory remarks offer encouragement to the man who thinks of taking rubber cultivation in hand. For his guidance, the authors also give chapters on Pará, Castillea and Ceará rubbers, and the products of *Ficus Elastica*, *Hancornia Speciosa*, and some minor rubber plants. Pará (*Hevea Brasiliensis*) and Castillea Elastica are written about at some length, the rest being touched upon more briefly. A chapter is devoted to concessions of land for Rubber-planting, which is a mere summary of the conditions of tenure in British India generally, and in Portuguese India and the State of Mysore. Selected estimates of return to capital contain some valuable hints; and in a good chapter entitled 'schemes for a mixed plantation,' reasons for advocating mixing are given very clearly, and certain combinations are suggested. There is also useful advice as to precautions that it is desirable to adopt against fire, dissemination of pests, &c. The final chapter treats of "The Ceylon Rubber Exhibition. 1906: its lessons."

To the experienced planter of rubber these Notes will be chiefly useful for easy reference in respect to points about which he may have temporary doubt, and perhaps as a well arranged "grammar" to which he may turn at times with profit to himself. The later generation of cultivators of rubber will no doubt find in the book much that is new to them. All will be impressed with the impartial way in which various statements are made and questions discussed; for one of the charms of the Notes is that there is nothing didactic about them.

They may be said, too, to sketch the progress of growth and preparation from seed to finished product, and the remarks upon shade or shelter, tapping, coagulation, &c. are made with great judgment. The price of the book is Rs.4-8-0 per copy.

Coffee.

THE PUSHING OF SALES IN ENGLAND.

"Under date the 13th ultimo, Mr. John C. Sanderson, writes:—

During the past month I have had several interview with a gentleman of the name of Mr. George Baxter, who is a representative of the 'Uno Company' 6, Savage Gardens, Tower Hill, E. C. who are the patentees of a coffee-roasting machine. Mr Baxter has been giving lectures to grocers and others on the advisability of roasting their own coffee and so supplying to the public a freshly roasted article daily. The Gas Light and Coke Co. have placed a room at his disposal to carry on these demonstrations. This gentleman applied to the London Chamber of Commerce to learn how he could approach the producers of coffee with a view to getting their support in carrying on the propaganda the "Uno Company" had already commenced. After consultation with this gentleman, I decided to write to the London Chamber of Commerce (copy of letter enclosed) asking them if they would call a meeting of the coffee section of the Chamber to thrash out the matter and learn whether any assistance could be got from the dealers.

I am posting to you a copy of "The Grocer" dated 26th January in which you will find an article touching upon the subject of *Coffee Roasting*, and also a copy dated 9th March in which you will see a suggestion of a proposed Coffee League.

I should like to hear from you whether the United Planters' Association are disposed to give any substantial support to this movement as the 'Uno Co.' have already incurred a certain amount of expense, and they are now seeking to obtain the assistance of producers.

I shall, of course, in due time inform you of the result of the proposed meeting of the coffee section.

P. S.—It may be worth while to draw your attention to the fact that importers and dealers of currants have greatly increased the consumption by the action they have taken in pushing the trade amongst consumers."

[INCLOSURE.]

To the Secretary, The London Chamber of Commerce.

13th March 1907.

Dear Sir,

As representative of the United Planters' Association of Southern India, I shall be glad if you will call a meeting of the Coffee Section of the Chamber to discuss whether it is possible to take any steps for popularizing the use of Coffee in the U. K.

Yours faithfully,

(Signed) JNO: C. SANDERSON.

The extracts from the 'Grocer' are as follows:—

A NEGLECTED DEPARTMENT.

A subscriber, whose letter on "Coffee Roasting," signed "Progress," is published in our "Correspondence," puges to-day, raises a subject which ought to receive much more consideration from retail grocers than the majority of them at present bestow upon it. Even if we do not entirely endorse his opinion that coffee is an article that has been more neglected than any other in connection with the grocery trade for some years past, we must at least admit that his conclusion is not without some justification. It is an undoubted fact that the vast majority of grocers do not pay proper attention to their coffee sales, and that if this department were conducted with greater skill and enterprise, it would yield a much more important return. True, there are some grocers who have a large and constantly growing sale of this commodity, but they are men who have gained a high reputation for the quality of their coffees, who have mastered the art of roasting and blending, and who have aimed at pleasing their customers' palate rather than their pocket. They have sought to build up their businesses on the sure and lasting foundation of quality rather than excessive cheapness; and they now enjoy the reward of the wisdom and business acumen they displayed in adopting this policy. Good coffee is a splendid beverage, and a powerful advertisement for the vendor, whereas inferior coffee, even if offered at low prices, fails to please the consumer, brings discredit on the grocer who sells it, and inevitably tends to check the growth of the demand for coffee which we ought to be able to anticipate with confidence.

That there is room for great expansion in the sale of coffee in the United Kingdom is undeniable. The annual consumption per head of our population according to a return issued sometime ago by the Board of Trade does not reach $\frac{3}{4}$ lb., whilst in the United States the average consumption per head is over 11 lbs. and in Holland over 18 lbs. ! The statistics referred to give the following as the per capita consumption of coffee during the five years 1899-1903 in the principal countries of Europe and in the United States:—

Years.	United Kingdom.	Germany.	Holland.	Belgium.	France.	Austria-Hungary.	United States.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1899 ..	0.71	6.20	19.57	10.70	4.62	2.04	10.79
1900 ..	0.71	6.28	18.57	8.65	4.64	2.05	9.81
1901 ..	0.76	6.65	18.56	10.56	4.76	2.15	10.60
1902 ..	0.68	6.53	28.04	10.08	4.88	2.18	13.87
1903 ..	0.71	6.88	14.89	7.41	6.28	2.21	10.79
Annual Average } 1899-1903	0.71	6.49	18.42	9.48	5.02	2.11	11.07

It is not probable that there has been any very substantial modification in the comparative relationship of these figures since the date to which they refer, and the question grocers ought to consider is how far it may be possible to increase the demand in the United Kingdom, and by what means that increase is to be brought about. It may be asserted that the fact that coffee was admitted free of duty to the United States and to Holland was responsible to some extent for the high consumption as compared with the United Kingdom, but as the duty at present imposed in this country amounts to only 14s. per cwt. it cannot be asserted that this impost was alone responsible for the restricted sales. What then is the cause of the poor demand and how can it be stimulated?

We believe the answer will be found in the one word "quality." Competent judges have expressed the opinion that in the past coffee has not been intelligently and sympathetically handled by the grocers of this country, and that the responsibility for the restricted demand lies largely with the distributor, who is inclined to think that once a month is sufficiently often to replenish his stock of roasted coffee, and who considers price rather than the merits of the article. English people may be a nation of tea-drinkers, but there is no reason why the tea trade should not maintain its progressive course and the consumption of coffee grow simultaneously. The grocer who would acquire a reputation for supplying good coffee—a reputation which will prove a most valuable recommendation for his other specialities—must buy the best coffees, carefully study their characteristics, and exercise all the skill he possesses in blending, adopt the most up-to-date methods in roasting, and as far as possible work on the principle of "from the coffee mill direct to the coffee pot." If he is able to assist his customers by giving them a few hints as to the best way of making a really good cup of coffee, he will still further help to popularise the article and he will find that once having acquired a taste for a highclass blend, they will become regular purchasers and will not object to his charging them a satisfactory profit-bearing price for it.—*Grocer*, January 26th, 1907.

COFFEE ROASTING.

[*Correspondence in the 'Grocer.'*]

Sir,—I feel that coffee is an article that has been more neglected than any other in connection with our trade for some years past.

I have a fairly good tea trade, and am anxious to improve my coffee output, and am seriously thinking of investing in a roasting machine. I do a good medium class trade in a fast-growing suburb of a large town, where I feel there is plenty of scope for an increase of trade. I also think a reputation for coffee would be a good advertisement for me.

I should esteem it a great favour if any of your numerous readers could give me any information or advice on this matter, especially those who have made a study and a success of the coffee department.—I am, &c., **PROGRESS.**

COFFEE: DOES ROASTING ON THE PREMISES PAY GROCERS?

Sir,—I think my experience will interest your correspondent "Progress," who wrote with reference to coffee-roasting. A few years ago I bought my coffee in small quantities roasted, and my sales were very small indeed.

Not being satisfied, I determined to have a window display on a small scale, so bought at the Grocers' Exhibition a coffee-roaster, 7-lb. size, double-cylinder system, with the gas in centre. The roaster is driven by a small electric motor and takes up about 4 ft. square. I have run it continually for the past four years with only the small cost of replacing the mica in the roaster and slight expenses connected with the motor. The cost of working and roasting runs out at about 8d. per cwt.

In reference to Mr. Underhill's letter, I cannot agree with him that better results are obtained with larger roasters, for given a good roaster and a careful man to roast the coffee who understands how it should be done, there is no comparison. On one or two occasions, I have had small parcels of 14 or 28 lbs. roasted by the wholesale house for me, but my customers have invariably detected the difference and remarked on it.

In the face of my improved and still improving coffee trade, I should not think of going back to the old methods of buying ready roasted.—I am, &c.,

C. H. LENG.

85, Park-street, Regent's Park. N.W., March 6.

Sir,—Having roasted my own coffee for some years, I was much interested in reading the experiences of other traders in this particular branch of our trade.

The two great obstacles I find in pushing the sale of coffee are, first, that very few people possess a coffee-pot, and do not think it worth while to purchase one, and, second, many customers say that after drinking coffee, they get backache. At first I was disposed to laugh at the idea, but this has been told me on so many occasions lately that I think there must be some truth in it. In fact, I am so often told this when introducing coffee that I have become somewhat disheartened in my attempts to sell more.

In roasting I always keep each kind separate, as one kind of coffee will roast quicker than another, thus preventing an even roast if mixed beforehand.

Perhaps some other friends will give us their experiences.—I am, &c.,

DORSET.

SUGGESTED "COFFEE LEAGUE."

A "COFFEE LEAGUE" to promote the consumption of coffee in England is suggested by the "Brazilian Review," which states that "if only Englishmen could be induced to take to coffee drinking, the problem of over-production would be solved. That in a damp, dull climate like England experiences tea should be preferred to coffee is one of those mysteries that only advertising, and perhaps the inveterate distaste of English cooks to putting themselves to more trouble than they need, can explain. It was advertising that gave tea the initial start. . . . The tea men formed a league to agitate in England for the abolition of the duty with such effect that it has already been considerably reduced, and may be shortly removed altogether. What we want is a Coffee League in England, France, and Italy to do likewise. In England the duty is only 1½d. per lb., but consumption is small, only 0·67 lb. per head, as against 18½ lbs. for Holland, 9½ lbs. for Belgium, and 6½ lbs. for Germany. There is plenty of room for improvement; but the first thing to do is to get the duty removed, and then to advertise. The opportunity to do something for Coffee is ripe. A movement has already been initiated to form a combination of planters, importers and others interested in the sale of coffee in the United Kingdom, and, if negotiations now proceeding are successful, a "campaign" in favour of coffee will be promoted.—*Grocer*, March 9th 1907.

A TECHNICAL LECTURE ON COFFEE.

MR. B. B. KEABLE (J. Travers & Sons, Ltd.) gave a lecture on "Coffee" on Monday at Reading University College, in connection with the special classes for grocers' and provision dealers' assistants. The lecturer dealt with the cultivation of coffee, its preparation for market and consumption and gave some suggestions as to how to popularise it in this country. Dealing with the cultivation of coffee, Mr. Keable said that most people—even many of those engaged in the daily distribution of coffee—thought that, though grown in many parts of the world, there was only one species. That was not so. There were three distinct varieties, each with their distinct peculiarity, yet all much that was common to all. They were known to science as *Coffea arabica*, *C. liberica*, and *C. maragogipe*. He felt convinced that the second one would never be a coffee of consumption in this country, and he doubted if the third would either. The Brazil crop year commences on July 1, yet of late the new crop had been in London in May, while Costa Rica, which used never to arrive before January, was now often obtainable in November. As to the preparation of coffee for consumption, he said let it be freshly roasted and freshly ground, the latter

being even more important than the former. He certainly did not advocate the roasting of coffee in the household, although he knew it was done very largely on the Continent. It was, of course, absurd to say that this would insure buying pure coffee, as he had heard it said. The grocer was an honest man, and if pure coffee was asked for, he would always give it. There was the question of time and trouble, and in many households they would not get a cook to do it. But, even apart from the trouble, roasting was a science, and where was the cook who had the slightest idea of how to do it? At one time he was a strong advocate of

EVERY GROCER ROASTING COFFEE FOR HIMSELF,

but since he had seen the mess so many made of it he was not quite sure that it would not be wiser to leave it to a practical man, who could and would do it properly. One grocer would roast too high, another not enough; a third turned it out at a certain minute, forgetting that different coffee took different times; a fourth burnt it to-day, and half did it to-morrow; another puts on anyone to do it, and so on. Still, there were many who did their own roasting, and who did it well, and they were the men who built up a good trade. If they were using different growths in their blends, they should not make the mistake of roasting all together, for all kinds did not roast in the same time, and therefore part would be either under or over-roasted. "Do not roast too high" was a doctrine which sadly wanted preaching, particularly in the south of England. It was curious that in the south the tendency was to a higher roast than in the north, and he believed that to this was partly due the fact that more coffee was consumed in the north than in the south. More important than fresh roasting was fresh grinding, and the grocer who bought his coffee from the wholesale dealer ready ground (and there were some) need not wonder that his trade did not grow. What could be done

TO INCREASE THE CONSUMPTION?

Would it be wise to do it, apart from the individual monetary interest we might have in it? He unhesitatingly said "Yes," for coffee was not only a stimulant, but it contained nutritive properties which were not to be found in tea. Containing, as it did, albuminoids and nitrogenous substances to some extent, coffee was invaluable as a stimulant; but it must be coffee, not chicory. And here he believed was very largely the one secret of the falling off in the consumption. Instead of drinking coffee, people have taken mixtures containing 50, 70, and even over 80 per cent. of chicory, and in consequence have not received the stimulating that they needed, and came to the conclusion that tea was preferable. He quite admitted that a small amount of chicory was liked by many people, and that it enabled the grocer to sell a moderate-priced article, but he did think that the inordinate use of chicory had done much to spoil the trade. Having pointed out that the two other drawbacks to coffee were price and trouble, Mr. Keable said that freshly-ground coffee was essential. There was no doubt that this was most important, for there was nothing more nasty than stale coffee. If a customer would not take the trouble to grind it, then the grocer must be prepared to deliver in small quantities. He knew one retailer who had built up one of the largest trades, and he delivered daily. With the present unreasonable demand from the public for cheap tea, it would pay many grocers much better to give up more time to pushing coffee, and by keeping it well before their customers, by showing them how simply it could be made, and, above all, by selling a sound, a good, a superior quality—not cheap, but at reasonable prices—they would find that, without giving up tea at some time of the day, coffee would again come into favour, and we might become to some extent a coffee-drinking people.

A correspondent writes to the *Bravilian Review* as follows:—"It was believed that locusts did not hurt coffee but, from the sample I send you, you will observe that the growing fruit has suffered. They peel off the green skins down to the parchment, so that the seed has no protection and cannot ripen properly. The extent of the damage on this account is not known but must be considerable."

MEETINGS OF DISTRICT ASSOCIATIONS.

Coorg Planters Association.

Proceedings of a quarterly General Meeting held at the Bamboo Club House, Polli Betta, on February 19th, 1907, at 2-30 p.m.

PRESENT.—**M. SSRS.** W. A. F. Bracken, E. M. Breithaupt, A. B. Chengappa, J. W. Finlayson, G. L. Garrett, F. W. Gerrard, H. G. Grant, B. Ganapathi, A. H. Jackson, F. Macrae, H. M. Mann, E. L. Mahon, J. Rose, W. H. Sprott, (President), P. G. Tipping, R. D. Tipping. **Hon. Member**—L. T. Harris, Esq., I. C. S., Commissioner of Coorg. **Visitors.**—The Hon'ble, Mr. S. M. Fraser, C. I. E., I. C. S., Chief Commissioner of Coorg, F. P. Rennie, Esq., I. C. S., Secretary to the Chief Commissioner of Coorg, A. J. Curgenvin, Esq., I. C. S., District Magistrate of Coorg; and A. Lambert, Hon. Secretary, C. P. A.

Mr. Sprott, President, in the chair.

The Hon. Secretary, in opening the meeting, read over the minutes of the last meeting, and the following questions were specially alluded to.

Alteration and Amendment of C. P. A. Rules.—Resolved that the final settlement of this matter be left to the next meeting, and that at least one member of each Sub-Committee, North and South, be asked to be present.

Supply Bills and encashment of same at Virajpet Sub-Treasury.—The Commissioner advises me as follows:—Supply bills cannot, under the account rules, be made payable at any Sub-Treasury. The holder however may forward them duly receipted by registered post to the Treasury Officer, Mercara, who will then issue cash orders on the Virajpet Sub-Treasury. It is to be hoped that Planters will avail themselves of this concession on the part of Government in permitting, and undertaking the encashment of supply bills at Virajpet Sub-Treasury, more especially as the Association was instrumental in bringing this question prominently to the notice of Government and I believe I am correct in stating that little or no advantage has been taken of the privilege up to the present time.

Scientific Officer Scheme.—The Chairman made some interesting remarks on this subject, referring specially to the expediency of making a start, even if only in a small way, and with only one officer, and quoting what had been done in Northern India by the Tea Planters, who now employed no less than three scientists, the resultant of a commencement with one officer, only as a general exemplar for us planters in Southern India, and mentioning the benefits which he had himself derived from the advice and suggestions received in regard to the cultivation and manuring of the estates in which he himself was interested from scientists, such as Dr. A. Lehmann, the late Mr. Pringle and other scientific gentlemen whose knowledge and experience he had had the privilege of availing himself of, as doubtless had others present at this meeting to-day; and he was quite sure that any small tax we might be called upon to pay in support of the scheme, would be by no means money idly spent. In fact he strongly advised all Planters to join the movement, and give it a trial, so that, in any case, we should have the satisfaction of feeling that we had done our best to try and protect the interests of our various industries by the employment of scientific aid as an auxiliary to our practical knowledge of the requirements of the different staple products grown in Southern India.

The Hon. Secretary then stated that the replies to the Circulars issued to members, C. P. A., asking them for their support to the Scientific Officer Scheme had been, generally speaking, very satisfactory, members representing some 9,500 acres coffee having already promised to support the scheme, provided that it is drawn up on reasonable and business lines; and doubtless others will come forward with their support later on.

The following resolution was carried *nem. con.*—

Proposed by Mr. Macrae, seconded by Mr. P. G. Tipping, "that this meeting views with favour, and strongly supports the suggested Scientific Officer Scheme, and that a copy of this resolution be forwarded to the Secretary, U. P. A. S. I., at the next Annual Meeting of which a decision will be arrived at concerning this said scheme."

Railway.—The Hon'ble Mr. Fraser kindly favoured us with his views regarding the prospects of the construction of the Mysore-Coorg-Tellicherry, and explained to us what had been done by the Local Administration to help to improve matters in regard to communications for Coorg, and moreover, read to us, as containing a very clear and concise statement thereof, the speech which he had delivered in reply to certain addresses presented to him at Virajpet on 18th ultimo. [This will be found printed *in extenso* on page 58 of Vol. II. No. 2 of *The Planters' Chronicle*, dated March 1907.]

Some discussion followed, and amongst others, Messrs. Breithaupt, Jackson, Macrae, and Rose made remarks and suggestions relating to this important question.

The following resolution, proposed by Mr. Breithaupt, seconded by Mr. Jackson, was carried *nem. con.* :—

"That this Association welcomes the prospect of the construction of a mono-rail line through the province connecting us with Mysore, and probably with the Western Coast. Moreover we are gratified to note that our Chief Commissioner is prepared to assist us, so far as he is able, to the attainment of the same. Meantime, we ourselves, not losing hope, but rather bearing in mind that should the mono-rail line prove a success, and materially develop the traffic in the province, it may hereafter lead to the construction of the much desired and long contended for Mysore-Coorg-Tellicherry line."

Mr. P. G. Tipping then, in a few well-chosen words, thanked Mr. Fraser for so kindly giving us his views on this important matter, and for promising us his strong support in connection with this question of improved communications for the province.

Rubber Seeds and Plants.—It having been brought to the notice of the Association that it was becoming customary for these to be collected indiscriminately and hawked about for sale, the seeds especially at this season of the year, the plants later on during the rains, the Hon. Secretary said that he hoped planters would, both in order to protect themselves from this petty larceny and also to discourage such unlawful traffic, make careful note from whom they purchased such commodities, and take all reasonable precautions to stamp out this objectionable practice.

Post Office.—The Hon. Secretary promised to see what could be done re the proposals contained in Mr. Mahon's letter for the improvement of the methods of business at present in vogue at the Polli Betta Post Office.

Timber Bills.—The Chairman introduced this question, and after some discussion and enquiry, the Chief Commissioner kindly promised to look into the matter, and cause the rules affecting the same to be revised where necessary, or possible. The regulation relating to rubber lands will probably be published in the next *Coorg Gazette*.

Exploitation of Oranges.—Mr. Fraser strongly advocated Planters making efforts in this direction, and an interesting discussion took place concerning the same on such points as the difficulties, as at present existent, of transport, the best methods of packing, disposal of crop, different varieties of oranges suitable to our soil and climate, and other details. The Chief Commissioner promised to help us in every way he could, and join us in our enquiries into this somewhat important question. The Hon. Secretary was desired to communicate with the Commissioner thereon.

Pepper Protection.—Mr. Rose brought forward this subject, which is doubtless one of vital importance to those interested in the Pepper Industry,

and as this product is now being largely and increasingly cultivated in the Province, both by European and Indian Planters, I think that all will agree with Mr. Rose that some steps should be taken to protect ourselves against the theft of this valuable produce which, it is generally allowed, is being carried on on a fairly extensive scale. Much discussion took place, and Mr. Harris, our Commissioner, kindly promised to assist us in this important matter—if it were in his power to do so—the Hon. Secretary being desired to communicate with that gentleman.

The following resolution was carried practically unanimously:—"That a Pepper Stealing Prevention Fund be started on similar lines to those of the Coffee Stealing Prevention Fund." Proposed by Mr. Jackson, seconded by Mr. Macrae.

Messrs. Jackson, Macrae and R. D. Tipping were appointed to act as a sub-committee to frame rules, &c.

The Chairman (Mr. Sprott) then rose and thanked Mr. Fraser, our Chief Commissioner, our Commissioner, Mr. Harris, and our other visitors for favouring us not only with their attendance at the meeting, but also for the sound advice they had proffered, and the sympathetic interest they had shown in the proceedings generally. Mr. Sprott, continuing, expressed regret that his approaching departure to England necessitated his resignation of the chairmanship of the Association, which office he had had the honor to hold for many years, and he desired to thank the members for the kind assistance, sympathy, and able support he had always received from them in the discharge of the duties of this responsible position, and he hoped that they would consider that his poor efforts to safeguard and manage the affairs of the Coorg Planters' Association had met with some small measure of success. A general expression of regret at the approaching departure of our Chairman, and a universal acknowledgment of the good and useful work he had done in the cause of, and the able manner in which he had always conducted the affairs of, our Association brought to a close a long and, I think I may safely add, very interesting and profitable meeting.

(Signed) A. LAMBERT,

Hon. Secretary, C. P. A.

Polli Betta, March 12th, 1907.

Wynaad Planters' Association.

Meeting of 12th March 1907 at Meppady Club.

PRESENT.—Messrs. Abbott, Armstrong, Atzenwiler, Behr, Branson, Mackenzie, Mackinlay, Malcolm, Powell, Winterbotham and H. Waddington, Honorary Secretary. **VISITOR.**—Mr. N. C. Whitton.

Mr. R. E. S. Branson in the chair.

1. Proceedings of the last meeting were confirmed.
2. Scientific Officer.—Read U. P. A. S. I. Circulars Nos. 9 and 12. The Hony. Secretary was instructed to ascertain what further subscriptions can be raised and inform Secretary, U. P. A. S. I., of the amount.
3. Cannanore Exhibition.—Read correspondence. Approved.
4. Tea Cess Committee.—Read U. P. A. S. I. Circulars Nos. 11 and 14. This Association adheres to its previous resolution that Mr. P. R. Buchanan be the representative for the U. P. A. S. I.
5. Local Measures.—Read correspondence. Approved. The matter to stand over till the June meeting, when it is hoped full particulars will have been received.
6. Jubilee Ward, Vayitri Hospital.—The Local Fund Board has made this available for all persons willing to pay 8 annas a day. Noted.
7. New Member.—Mr. H. B. Winterbotham was elected.
8. Attesting of Contracts.—The Hony. Secretary was instructed to write asking that Mr. Behr may be appointed to attest contracts in place of Mr. Richelmann, who has left the District.
9. Police.—Read letter from Superintendent of Police, Calicut, informing the Association that Wynaad is now in the Police District of North Malabar and all

communications on Police matters should be addressed to the Superintendent of Police, North Malabar, Tellicherry, who was made an Hony. Member of the Association.

10. Poodupardi Hotel.—The Honorary Secretary was instructed to do what is necessary as regards Building and Stables.

11. Mono-Rail.—Read Mr. D. Jackson's letter. The Honorary Secretary was instructed to obtain from Mr. Jackson particulars as to cost.

12. Papers on the table.—

U. P. A. S. I. Circulars Nos. 9 to 16.

Indian Tea Association Circulars Nos. 24 & 25.

Indian Tea Cess Committee Bonus offered on Green Tea.

A vote of thanks to the chair terminated the proceedings.

(Signed) R. E. S. BRANSON, *Chairman*.

(Signed) H. WADDINGTON, *Honorary Secretary*.

Shevaroy Planters' Association.

Proceedings of a Quarterly General Meeting held in the Victoria Rooms, Yercaud, March 11th, 1907.

PRESENT.—Messrs. Pritchard, S. M. Hight, C. G. Lechler, C. Rahm, W. Rahm, J. C. Large, F. D. Short, and W. I. Lechler, *Chairman and Honorary Secretary*.

1 Read and confirmed Proceedings of Committee Meetings held in January and February.

2 Read and passed accounts for quarter ending February 28th.

3 Read letter dated 6-3-07 from Mr. Cayley signifying his acceptance of the Hony. Secretaryship of the Association on the departure of Mr. W. I. Lechler, on certain conditions.

Resolved that Mr. Cayley's offer be thankfully accepted and that he be informed that his conditions will be complied with.

4 Read letter dated 22-2-07 from Mr. A. G. Nicholson forwarding copy of rules issued to all his writers.

Resolved that he be thanked for the rules and that he be informed that his suggestions re coffee passes will be considered later on.

5 Read and recorded letter dated 22-2-07 from the Collector and District Magistrate of Salem, stating that it is the intention of Government to replace, as far as possible, the various local measures by one standard measure and that it has been decided for the present to "standardize" and not to prescribe measures. It is therefore open to merchants to use other measures, but in future no measure will be tested or marked as correct except those conforming to the standard measure.

6 Read and recorded U. P. A. Circulars Nos. 9, 14 and No. 16. With reference to No. 15 this Association approves of the points brought forward by the late Chairman, re advertising Coffee, Rubber lands, Railways, Scientific Officer and U. P. A. Finances and is of opinion that prompt action should be taken in these matters, without however expressing their views at present as to the *modus operandi*.

7 The Hony. Secretary brought to the notice of the meeting that the B. returns of cultivation and production of coffee during 1906 are to be sent in on or before the 1st April to the Deputy Tahsildar under Section 15 of Madras Act VIII.

Papers laid on the table:

Central Travancore P. A. Proceedings, 19th January.

Tea Circulars.

(Signed) W. I. LECHLER,
Chairman, and Honorary Secretary.

Kanan Devan Planters' Association.

Minutes of a quarterly General Meeting of the Kanan Devan Planters' Association held at Munnar Club on Saturday, 9th February 1907, at 2-30 p.m.

PRESENT.—Messrs. J. C. Abbott (Chairman), H. M. Knight, C. Bell, J. M. Bridgman, E. E. Williams, A. N. Sharp, D. Macintosh, A. J. Wright, J. C. Swayne, A. J. Imray, G. E. Bewley, M. C. Koechlin, A. Yates, and H. L. Pinches, (*Hony. Secretary*).

The Notice calling the meeting was read.

U. P. A. S. I. Delegate's Report.—Mr. A. F. Martin, who represented the Association at Bangalore, spoke as follows:—

Mr. Chairman and Gentlemen.

"Under your instructions, I attended the 18th Annual General Meeting of the U. P. A. S. I. which was held at Bangalore, on the 13th, 14th, 15th, and 16th of August 1906.

"The Book of Proceedings was published some time ago, and I have no doubt you have all made yourselves familiar with its contents. Since then 'The Planters' Chronicle' has been sent to the Manager of each estate gratis, and as this has contained the proceedings of the other Associations in Southern India, you have been able to follow the reports of the several other Delegates as to what occurred at Bangalore. Consequently I have very little to say.

"The Subject of *Commission on Money Orders* is one which has recently assumed importance in the District. I therefore wish to call your attention to the fact mentioned by Mr. C. E. Abbott at Bangalore, that you can get by Parcel Post registered and insured Rs.400 in silver rupees, for which the Post Office charges Rs.2-2-0, while by Money Order the same amount costs Rs.4. We have so far not succeeded in convincing the Director-General that the Money Order commissions are too high.

"A Fertilizer Law we must all admit would benefit the whole country, and perhaps I may be permitted to express a hope that the Delegate of this Association will be instructed to support the demand for control of the fertilizer trade at future meetings of the U. P. A. S. I.

"As instructed, I supported the Peermade Delegate in his proposal, which was carried unanimously: 'That this Association wishes to record its appreciation of the fact that one penny of the war tax on tea has now been removed and earnestly hopes that the Home Government will see its way to reduce the tax by another penny at least, at no distant date.'

"I also supported him in his proposal that the agitation for the removal of the Ceylon Import Duty on tea be continued, which was carried by the Meeting.

"In compliance with your instructions, I opposed the idea of any of our joint funds being used for an Experimental Farm in Mysore. On the last day of the meeting, the proposal was superseded by one to the effect that South Indian Planters should appoint a Scientific Officer of their own, on the same lines that the Indian Tea Association has done.

"As regards the Labour Law, I am glad to say that there was evidence that its real nature is becoming more apparent to the Associations who form the U. P. A. S. I. Mr. Abbott stated the case very clearly, and I recommend all of you to peruse his remarks on page 82 of the Book of Proceedings. My own part was to prevent any possibility of the Act being forced upon any District against its wishes, whether in British India or in Native States, and in spite of Mr. Abbott's resolution, which I seconded, being rejected, I think I may say that the position has been improved so far as we ourselves are concerned. Of the two Districts where the Act is in force, one appears to have reason to be actively hostile to it, and the other thinks that with certain amendments the Act may be made more useful and acceptable.

"The voting (perhaps owing to the abstentions from voting) at the U. P. A. S. I. Meeting, agreed with the latter view.

"I brought forward the matter of the Theni Bridge and was ably seconded by the Peermade Delegate, and a resolution that the U. P. A. S. I. lay the matter before Government was carried.

"I supported the Honorable Mr. Hodgson in asking Government for the early construction of three railways for Planting Districts, the first being the Dindigal-Pollachi-Palghat Railway.

"The previous year's resolution on the subject of Weights and Measures was reaffirmed by the Meeting.

"It was shown that the U. P. A. S. I. finances were not in a sound state, and, as you all know, the subsequent failure of Messrs. Arbuthnot & Co. has added to the difficulties of the position.

"It was a compliment to the Kanan Devan Planters' Association that your Delegate was elected Vice-Chairman."

Mr. Inray proposed a vote of thanks to Mr. Martin for the able way in which he had represented this Association and his very interesting report.

Seconded by Mr. Koechlin and carried *nem. con.*

Sri Mulam Delegates' Report.—Mr. Williams, who represented this Association at the Sri Mulam Popular Assembly at Trevandrum, said he had practically nothing to report, as the only subject he was instructed to speak on was the desirability of a reduction of the Travancore Coffee Export Duty and he was informed as soon as he got to Trevandrum, that Government had already decided to reduce this from five to four per cent. on the present tariff valuation. It was therefore only necessary for him to thank the Government on behalf of the Association for this very welcome reduction.

Boday Mettu Ghat Road.—The Chairman informed the meeting that the new road was now finished but that it had cost more than the original estimate. After some discussion, Messrs. Knight, Koechlin and Pinches were deputed to inspect the road and report on it to the Association.

Munnar Mettu Road.—Mr. H. M. Knight asked the Association to take up the question of the deviation of trace on this road. He explained to the meeting that in July 1905 the District Magistrate had asked him to cut this new piece of road which was to shorten the distance between Munnar and the Mettu by two miles and had informed him that he (the District Magistrate) had Rs.650 to spend on it. Mr. Knight had spent Rs.620 on the road, of which Rs.800 had been paid to him and Rs.320 was still outstanding. He asked the Association to use their influence to recover this amount for him and to get the road finished, as at present it was useless, as about 200 yards at the Mettu end was uncut.

The Hony. Secretary was instructed to address the District Magistrate on the matter.

Shortage of Salt in the District.—Mr. Martin proposed the following resolution.—

"That the Hony. Secretary of the Association be instructed to address the Excise Commission on the subject of shortage of salt in the District and to endeavour to get some satisfactory guarantee by which the constant worry, trouble and expense caused by the constant shortages occurring will be avoided."

"That failing to obtain satisfactory assurances on the subject, the correspondence be carried to the British Resident."

Seconded by Mr. Koechlin and carried unanimously.

Home and Inland Mails.—Mr. Wright proposed:—

"That since our representations to the District Superintendent of the Post Offices, Madura, have had no effect, the attention of the Postmaster General, Madras, be invited to the unsatisfactory and irregular way in which postal matters (particularly Home Mail Papers) are being received at the Post Offices in the District, and an investigation of the matter requested."

Mr. Wright, in speaking to his resolution, said that the Home Mails used to reach us on Mondays, three weeks out of four, but that for weeks back, they had not reached us till Tuesday and that the delivery of Home Mail papers was still worse, as the last of them very often did not reach us until Thursday.

With regard to the Ceylon Mails some time ago, the Association pointed out that letters from Ceylon took twenty-four hours longer to get here than a passenger leaving Colombo by the same mail, and in answer to our representations the service was accelerated by twenty-four hours. The improvement, however, did not last very long, as at present and for some time back the delivery of Ceylon Mails had reverted to the old style.

He thought it was time that the Association made strong representations to the proper authorities, as the present state of affairs was intolerable."

The Resolution was seconded by Mr. Bell and carried unanimously.

Grog Shop at Maddupatti.—The Chairman read correspondence between the Excise Circle Office, Devicolam, and the General Manager of the K. D. H. P. Co. with regard to the proposed opening of a Liquor Shop at Maddupatti.

The Chairman proposed the following resolution, which was carried unanimously —

"That this Association protests against the establishment of Liquor Shops in the District in direct opposition to the wishes of the members of the Association, and that the Government be asked to withdraw their proposal to establish a Liquor Shop at Maddupatti, where it is certainly not wanted."

With a vote of thanks to the Chair, the meeting terminated.

Papers laid on the table.—

U. P. A. S. I. Circulars to date.

I. T. A. do do.

Correspondence and accounts referring to deviation of trace on Munnar-Mettu Road.

(Signed) J. C. ABBOTT, *Chairman.*

(") H. L. PINCHES, *Hony. Secy.*

The report of the Committee of the Ceylon Chamber of Commerce for 1906 states:—

TEA.—Total exports for the year of both Black and Green Teas amount to 169,909,888 lbs. as against 172,629,960 lbs. for 1905, a decrease of 2,720,624 lbs. The quantity of Green Tea exported is, however, nearly one million lbs. in excess of the shipments for 1905. Shipments to the United Kingdom show a falling off of 5½ millions lbs., and to Australia of rather over one million lbs., as compared with 1905, whilst those of Russia and America have increased by about 2½ and ¾ million lbs. respectively. Exports to other countries collectively have also increased by approximately ¾ million lbs. Shipments to India have declined by close on one million lbs., and a corresponding increase is noticeable in those to China, a large proportion of which finds its way to Russia and America.

QUALITY.—The last half-year has seen a generally higher average of quality than was produced in the earlier months. This was not so much due to any marked improvement from estates of high elevation but rather to careful plucking and manufacture, with favourable climatic conditions, in the lower districts. The supply of really finest flavoured kinds has not been large, while latterly the commonest sorts have scarcely been represented, and it is to be hoped that with the more promising outlook for the lower grade teas every care will be taken to prevent falling away from the present standard. Green teas have shewn good quality and manufacture throughout this period, and but for the remunerative prices obtained for low country blacks, the quantity might have been larger, and without any pronounced weakness in quotations. "The average price obtained at local auctions was 85 cents, against 83 cents in 1905.

INDIAN TEA ASSOCIATION, (Calcutta).

Extracts from Report of the General Committee for the year ended 31st December 1906.

Indian Tea Cess Committee.—The Indian Tea Cess Committee have been consistently pursuing their efforts to push the sale and to increase the consumption of Indian tea in foreign markets. There is no need here to particularise the work. It will be sufficient to say that in conjunction with Ceylon, the campaign in the United States is being vigorously prosecuted. A beginning has also been made in Belgium and Germany, where a Special Commissioner is organising active measures. The bonus on exports of green tea has been continued during the year at the rate of six pices per lb. but there would seem to be some doubt as to whether this mode of assisting the industry can be usefully continued.

Scientific Department.—The increase in the staff and the development of the work of this Department of the Association, which was outlined in the last report, has come into operation during the year. Mr. C. B. Antram, the entomologist, whose appointment was notified in last year's report, entered on his duties on April 1st. 1906. After careful consideration, it was determined to locate his headquarters in Cachar. A suitable bungalow, and a site for his laboratory were offered by the Doodputlee Tea Company, about four miles distant from Silchar. Since that time the laboratory has been erected, and is now occupied. In the nine months he has been in the service of the Association, he has conducted investigations into three serious caterpillar pests of tea—the red slug caterpillar, the tea looper, and the bark-eating borer—and has, in conjunction with Dr. Mann, published a report on the first named of these. It is anticipated that serious work will be undertaken in 1907 in connection with the green fly of tea, and, if possible, also with *thrip*, which last has become a most serious enemy in the higher level gardens in Darjeeling.

The Heeleaka Experimental Station has been maintained throughout the year under the resident charge of Mr. C. M. Hutchinson, and its area has been extended in order to allow of the planting out of various varieties of tea under similar condition. The results of the experiments so far undertaken are very encouraging. Among several new green manures for tea tried there, one has been found, *daincha* (*Sesbania cannabina*), which bids fair to be superior to any crop hitherto used for the purpose. Its application on a large scale on a number of gardens in 1906 has confirmed the results obtained at Heeleaka. Indications have been found that the quantities of manure, such as oilcake and cattle manure, which it has been customary to apply to tea have been unnecessarily high, and that more economical results can be obtained by applying much smaller quantities at more frequent intervals. It is proposed to leave most of the plots hitherto manured without any manure in the present season, in order to ascertain that permanent effect has been produced on the bushes by the manurial treatment, and also the residue of value left in the land after the treatment. A report of the results of these experiments for the first two years of their existence is now under preparation, and will be ready for issue early in 1907.

During the manufacturing season, Dr. Mann was able, by the courtesy of the Tukvar Tea Co., Darjeeling, to continue his investigations into manufacture of tea on their estates. He had already worked out in Calcutta a method which seems to give promise of affording a chemical method of determining flavour in tea. By its use he has been able to follow the course of the development of flavour during the course of manufacture, and to ascertain how it is affected by alteration in the conditions under which tea is made. The results of this investigation are to be issued in the early part of 1907.

In April, May, and June 1906 the worst attack yet observed of 'blister blight' of tea occurred in Upper Assam, and at the request of the local branch of the Tea Association, Dr. Mann was instructed to visit the district and to make a special study of the question. He was able, in a large measure, to account for its

prevalence, and to suggest methods which would tend to prevent attack in future years. These results were made public in a special bulletin on the subject.

Several investigations which have been in hand a long time are now maturing, and it is hoped that it may be possible to bring out the results at an early date. Among these may be mentioned the study of the tea soils of the Duars, which, with those obtained earlier, will enable general results to be drawn for soil treatment applicable to the whole of North-East India. Again, experiments were initiated into heavy-pruning of tea at the end of 1900, and the results are now, at last, ripe for issue.

Statistics of Tea Production.—A question concerning the annual statistical statement of the production of tea in India, was raised by the Director-General of Commercial Intelligence in September. The information upon which the statistics are based is obtained by the local Governments on a form of return which is filled in by the planters in the different districts. As regards the area under tea cultivation, planters are asked to state the number of acres "under mature plants," and the number "under immature plants." And in a foot-note it is explained that "mature plants are plants over three years old; and immature plants are plants less than three years old, that is, still unfit for plucking." Certain discrepancies in the statistics of areas had been noticed by Government. And it seemed to the Director-General that these discrepancies might be due to some confusion as to "mature" and "immature" plants. He invited the Committee to state: (1) whether they could account for the discrepancies in question; (2) whether they would recommend a change being made in the definition of "mature" and "immature" plants; and (3) whether the yield of plants of such age as to be partly plucked, approximates so closely to that of plants in full bearing as to warrant their inclusion in the statistics of area.

The Committee consulted the different local Association, upon the points thus raised. The result was that in December they replied to the Director-General to the effect that they agreed with him in thinking that the discrepancies in question were probably due to confusion as to the precise meaning of the terms "mature" and "immature" plants. They suggested that these terms should not be used at all; and that the foot-note should be omitted also. It would be sufficient, they considered, if the headings to the two columns in which planters are asked to state their areas were amended to the following:—

Col. 7.—Plants upwards of three years old.

Col. 8.—Plants of three years old and under.

The adoption of these headings would not involve any material change from the established system. The only difference would be that plants of three years old would be definitely accounted for, which is not the case with the existing form. It was true, the Committee recognised, that the figures would not show accurately either the area under mature plants or the area under immature plants. For the age at which the tea plant arrives at maturity varies with the different districts. But the same objection applied to the existing system, which had moreover been shown to be defective, in that its results were contradictory and unsatisfactory. On the other hand, the form, if amended as they proposed, ought to yield clear and definite results, seeing that there could be no possible doubt as to the particular information wanted.

The question is now before the Director-General, whose views are awaited by the Committee.

British Import Duty on Tea.—When the last Annual Report of the Committee was published the position in regard to this duty was that it had been reduced to 6d. per pound, and that the Anti-Tea-Duty-League, in conjunction with the Association was pressing for its further reduction. The agitation was continued, although, owing to difficulties which occurred in connection with the organisation and working of the League, certain changes had to be made. But towards the end of March the Indian and Ceylon Associations in London submitted a memorial to the new Chancellor of the Exchequer—the Rt. Hon. H. H. Asquith. In this memorial the action taken by the Associations in the past was recited: and it was urged that the duty should

be further reduced by the remission of the war tax of 2d. per pound, which was imposed in 1900. It was also shown in the memorial that by the imposition of this war tax, the industry had been compelled to bear, during the period 1900-06, a yearly addition of not less than £2 mi's. or £12 mils. in the six years. By the enhancement of the duty in 1904 to 8d. per pound, this amount was further increased to the extent of £2½ mils for the period of fifteen months. Thus, during the six years in question, tea had had to bear a burden of £14½ mils. over and above the normal amount of £4 mils. which it has contributed annually since 1890.

The Committee forwarded copies of this memorial to the Government of India, and suggested that H. E. the Viceroy should impress upon His Majesty's Government the urgent necessity of a special reduction being made in the impost. His Excellency did not however take action, as while the correspondence was in progress the announcement was made in the Budget Statement that the duty would be reduced from 6d. to 5d. per pound. The reduction was not considered to be particularly satisfactory, and the efforts of the Association and the Anti-Tea-Duty League are now being directed to the task of obtaining a still further remission.

Ceylon Import Duty on Tea.—This difficult subject, which has been before the Committee so frequently of recent years, has again been under consideration. In March a question was asked in the House of Commons as to whether there was any prospect of the abolition of the duty, which as is well known is levied at the rate of 4as. per pound on all teas imported into the island. The Under-Secretary of State for the Colonies replied that, in view of the opposition of the Ceylon planters, the Government of the island had decided to make no change. They were, however, being invited to take the matter up again.

Shortly afterwards the Committee decided, at the instance of the London Association, to approach the Government of India once more. They did so on the 28th June, pointing out that the imports of Ceylon tea into India had grown from 469,559 lbs. in 1903 to 921,789 lbs. in 1904, and to 2,107,001 lbs. in 1905. In view of these figures, and looking also to the fact that the representations of the Government of India had been ineffective the Committee suggested that the question should be referred to the Secretary of State for India, so that it might be taken up with the Secretary of State for the Colonies. Anything in the shape of a protective duty, which the Ceylon impost clearly is, was, the Committee understood, absolutely opposed to the avowed policy of the present Government. And although the Government of Ceylon had deferred to the expressed wishes of the planting community, it seems to be possible that they might decide to abolish the duty on their own initiative, if the proposal were strongly urged. The Government of India consented to approach the Secretary of State for India, who in turn drew the attention of the Secretary of State for the Colonies, to the question. But Lord Elgin expressed the opinion that in view of the past correspondence with the Ceylon Government, it could not be conveniently re-opened at present.

The Committee do not see that they can take any further action in India. But they have suggested to the London Association that an attempt might be made to raise the question again in the House of Commons at the first convenient opportunity.

Packing of Fannings and Small Leaf Teas.—Of recent years there have been complaints periodically of the heavy weight of dust and small leaf teas packed into chests. The Calcutta Tea Trades Association have repeatedly drawn attention to the necessity of reducing the weight, but no marked improvement has been effected. In October last the Tea Traders' Association made the following recommendation, which they forwarded to the Committee, viz:—

"That the quantity of fannings or small leaf tea of any description shall be limited to 100 pounds, and that nothing lighter than 4oz lead shall be used for lining the chests containing such tea."

With this recommendation the Committee were in agreement, and they placed it before the members of the Association. In so doing they expressed a hope

that members would strongly recommend their Garden Managers to conform to its provisions.

Finance.—The total planted area represented by the Association during the year was 869,994½ acres. The subscription at the rate of one anna per acre amounted to Rs.28,124-10-6. The Revenue account shows a surplus of Rs.1,486-18-8, which has been transferred to capital account. On the 31st December 1906, the balance in hand amounted to Rs.11,870-5-6. In addition, Government 8½ per cent. Securities to the extent of Rs.85,000 are held by the Committee.

Work of Scientists.

At the twenty-sixth Annual General Meeting held on Tuesday the 26th February 1907, Dr. Mann said:—

It seems to have become a custom for the Scientific Officer to the Indian Tea Association to give a short account of the work of the past and the programme for the future in connection with his department at the annual meeting held in February, and it is a custom which I am only too pleased to follow. As a matter of fact the past season has been one of extension, and of very considerable activity. The *personnel* has been increased by the appointment of an entomologist and several other additions to the staff; a new branch station has been founded and a laboratory built in Cachar; no less than five bulletins have been issued dealing with as many sides of the scientific study of tea culture and manufacture; and correspondence with planters in every part of the tea districts is constantly increasing. You will find a general statement in regard to the work in the annual report now in your hands, but there are several aspects on which I might perhaps enlarge to-day.

From my own point of view none of the investigations undertaken since I came to India has had anything like the interest of those connected with the fermentation of tea. In the early days I was able to ascertain the cause of the changes which occur during this operation, to isolate the ferment, and ascertain its properties. At a little later date it was shown that one of the chief functions of the process of withering the leaf was to cause a large increase in the amount of this ferment. Again, this increase was found to require a definite time to be completed, and if this time were exceeded the quantity again decreased. The result was to explain why all methods of rapid withering have failed, and also why leaf left much over twenty-four hours on the withering racks nearly always produces inferior tea. Proceeding beyond this, I have been able to show that the correct fermentation process which follows depends on this ferment, but that if the temperature is raised about 82 to 84° F. other actions, unconnected with ferments of any kind, interfere with the process and spoil both the pungency and body of the tea produced. So far I was able to go a year ago. Now in this matter I can take a further step. Not only does a high temperature interfere with the reaction we desire, but so does a low temperature also. In this case it is not, however, owing to the existence of a second and undesirable reaction, but to the fact that the reaction appears never to become complete, and that before the fermentation is finished, microbes and other organisms have so much time to grow that they are able to seriously damage the class of tea produced. Hence we are now able to say with some amount of confidence that, giving regard to the pungency and body of the liquor alone, the best tea can only be produced when the fermentation takes place between 77 and 82° F. or an extreme of 75° F. and 84° F.

During the past season, for the first time I have been able to elaborate a method by which I can follow, at least approximately, the development of the essential oil which is the principal cause of flavour in tea. Applying this method to the actual process in vogue, it immediately becomes clear that the flavour is not at all developed during withering, for the essential oil remains nearly the same during the whole of this operation. But as soon as leaf cells are broken in the rolling, development of such flavour as is possible takes place with extraordinary rapidity. In half an hour nearly all is developed; after one hour (taking a temperature of 80° F. as a standard) very little further change takes place, while after three hours from the commencement of rolling there is

usually a gradual loss of the flavour produced up to that point. In fermentation we have therefore two apparently inconsistent objects to attain. First, we have to give time enough to complete as near as may be the fermentation of the tannin and development of body of the liquor, and we must not give more than three hours, or the flavour will begin to decline, all being between the temperatures already indicated.

The best result which can be obtained hence varies with the tea which it is desired to produce. But it is perfectly clear that the best flavour from leaf cannot be obtained if more than three hours' fermentation are given, nor the best liquor if less than about four and a half to five hours are employed.

But with regard to flavour, there are other influences of even greater importance which follow the fermentation when the tea is on the firing machines. Time will not permit me to-day to enlarge on this matter, but the whole of my recent investigations are described in a pamphlet which will be ready for the press within a fortnight.

The only other matter with which I will trouble you to-day concerns the Heeleaka Experimental Station. Several points have already come out of the field experiments on that station which are of intense interest. I have already written about the discovery of the *dhaincha* plant as a green manure for tea. During the last year it has maintained its reputation not only at Heeleaka, but in the hands of quite a number of planters, and the trouble now is to procure enough seed to satisfy the demands of the industry. The second matter is the proof of the extreme value of very small quantities of manure to tea. We have got almost equal results by the use, for instance, of five maunds of oilcake per acre as with fifteen maunds in the first year, and so far it seems very decidedly preferable to apply much smaller quantities of these concentrated manures than has hitherto been the custom, and to apply them more often. This result has also been confirmed by the experience of quite a number of planters acting on our advice, and in a short time I expect to see a much larger acreage of tea annually manured than has hitherto been the case, with very little, if any, increased expenditure of money. The third point which has become clear from the Heeleaka experiments is the fact that none of the manures which we have applied in small quantities have had any appreciable effect in causing deterioration of the quality of the tea, an effect hitherto always feared by planters in districts producing high quality tea.

I cannot conclude without referring to the valuable work done and doing by the entomological department. Mr. Antram made last year a detailed study of the 'red slug,' a caterpillar pest of extreme severity in the Duars; he is now employed on the more difficult pest, 'the bark-eating borer,' which is doing much damage in the Surma Valley, and also on 'the Sandwich caterpillar' which has been an annual serious visitant to parts of Assam. He is to commence the very difficult investigation of 'the green fly of tea' as soon as this latter appears. His work has been good, and I anticipate great value from his services in the coming years.

Now as to the future. During the next few months we hope to add to the pamphlet on the 'Fermentation of Tea' already indicated respectively on 'The Tea Soils of North East India,' 'Experiments in Pruning, 1901—1906,' 'The Heeleaka Experiments, 1905 and 1906,' and 'The Sandwich Caterpillar of tea.' The work on the fermentation of tea will be extended, and further steps, let us hope, made in its study; the area under experiment at Heeleaka is being enlarged; a careful investigation into the root development of tea is being made, and other lines of research are being followed up.

These various investigations could not be maintained were it not for the keen and cordial co-operation of the planters in almost all our districts, and the good work of my various assistants. I feel that now, when the commercial future of tea is bright with hope, there ought to be rapid development on the lines which my department has been able to indicate during the last seven years, in the raising of every tea estate to the highest possible level of both yield and quality of tea.

General Committee Meeting.

Extracts from Proceedings of a Meeting of the General Committee held on the 5th March 1907.

Ceylon Import Duty.—A letter from the Chairman of the Assam Branch of the Association was before the Committee. At the meeting of Committee held on 5th February, reference was made to a proposal that united action should be taken to bring to the notice of Government that injustice done to the producer of Indian teas in the matter of the respective duties levied on teas imported into India and Ceylon.

The details of the scheme, as set forth in Mr. Skinner's letter, were noted, and it was decided to await a further promised communication on the subject before taking action.

Scientific Department.—A letter of 1st March from Dr. Mann was considered. In connection with the scheme for the entomological section of the Scientific Department of the Association, an Assistant Entomologist was provided for, and Dr. Mann now wrote that he had found a man suitable for the post, and requested permission to appoint him on probation for three months, at a salary of Rs.50 per month, to be raised to Rs.100 per month should he prove satisfactory. The Committee decided to await the estimates for the Department for the current year, which are presently being drawn up, before dealing with the matter.

Dr. Mann also submitted the account of the Scientific Department with the Scottish Assam Tea Co., from which it appeared that, at the end of January, there was a balance in favour of the Association of Rs.2-2-3.

United States Food and Drugs Act, 1906.

Circular No. 7 of 1907.

The accompanying letter of 21st January 1907, from Mr. R. Blechynden, St. Louis, is published for the information of members, along with a ruling of the Department of Agriculture of the United States regarding the application of the Interstate Pure Food Law to Tea.

W. PARSONS,

Secretary.

No. 208-210, Olive Street, St. Louis, 21st January 1907.

From—R. Blechynden, Esq.,

To—W. Parsons, Esq., Royal Exchange Building, Calcutta, India.

It is as yet too soon to form a decisive opinion as to the probable effect of the Pure Food Law upon the tea trade, still there are already indications worth noting.

Although the Law was passed on the 30th June last, it did not come into effect until the 1st January, and but little attention was given to its provisions till about the close of the year. Since then there has been a growing feeling of alarm in the trade and an uncertainty as to how the importation of Green Teas would be affected. So late as the 16th instant, a correspondent writing to me on this subject said, "Anything will be better than this suspense. It is just killing the whole business outside of Blacks and the big houses like X....., and Y....., etc. are helping it along by demanding with each purchase a guarantee that the tea they buy will come in all right under the Pure Food Law which, so far, I have not heard of any one giving, but they do write on the contract 'guaranteed to be the same, etc., as passed by the Government Inspectors.' Since then I understand that a distinct ruling has been obtained from Washington that teas passed by the Government Inspectors under the Act of March 2nd, 1897, will not be interfered with under the Pure Food Law. While this settles the question for the present, it may arise in another form when the standards are being selected under the Tea Law, which will govern the importations of the ensuing season.

In any event, a feeling of distrust has been created in regard to Green Teas, and the fact that they are artificially coloured has been forced upon the attention of the trade. This fact is not new to the trade generally, but has been accepted without especial consideration heretofore.

Under the regulations governing the administration of the Pure Food Law, "only harmless colors may be used in food products." Section 7 of the Law is read with regulations 12 and 14, and Regulation 15 will also apply.

So far as we know at present, the immediate result has been that Green Tea repacked in this country into such packages as pass directly into the hands of the consumers have to be especially labelled with a wording that they are artificially colored. The following is the matter used upon this special label by a Tea house in this city:—

ARTIFICIALLY COLOURED

With vegetable matter but not harmful, and in no way affects the natural flavour, the colouring is used for appearance and style only. This tea is put into this container direct from the original imported package, which has been passed upon and released by the United States Custom House officials as being pure tea.

This label has to be used on packages containing either Green tea alone, or blends in which Green teas are included.

Under Regulation 21, teas put up in packages in this country in blends of India and Ceylon or of these and other teas together, have to be labelled and the names of teas composing the blend have to be stated on the label. The local firm I have referred to above uses the following special labels:—

"Blend of India and Ceylon Teas."

"This Tea is a blend of China, Japan, Formosa, India and Ceylon production."

As I have pointed out above, only harmless substances can be used for coloring food. We have yet to learn what substances the Department considers harmless, as Regulation 15, paragraph (b) says that the Secretary of Agriculture shall determine this from time to time. The fact that Green teas are not coloured with vegetable substance appears to be well established.

I have written at some length upon this subject as it has an important bearing upon the future of the tea trade in this country. The retail trade are demanding guarantees from jobbers and packers, and a form of guarantee is recognized by the Department of Agriculture. The important question is, however, how the consumer will act and whether the fact that Green teas are adulterated, whereas Black teas are not adulterated, will make a change in their demands.

In addition to the Green Teas of China, as well as of India and Ceylon, Japan Pan-fired tea is artificially coloured. Basket-fired and Sun-dried Japans and Black teas only are uncoloured. In this connection it appears to me important to remember that the natural uncoloured teas, known in India as *Namouna*, while entirely free from colouring matter, have the same cup qualities as the best China Green or of Japan Pan-fired. In a few months' time, before the opening of manufacture, I may be in a position to make some suggestion in reference to pushing this class of tea.

CHICAGO, January 2nd, 1907.

Imported Goods may go into Interstate Commerce without further inspection, provided such shipments shall be made in the original packages. If, however, the packages are broken, they no longer have the protection of the Import law, and become subject to the rules applied to domestic products, *e. g.*, if a case of Tea be imported which contains small cartons packed with Tea, the original case may be opened, and the cartons transported in interstate commerce without additional labelling, and no statement that it is colored need be made, provided the cartons shall not be opened. If, however, the cartons are opened, they no longer have the protection of the Import law, and immediately become subject to the rules applied to domestic products; and, if the tea is artificially colored, every carton must bear the following statement—"Artificially Coloured." All colored teas repacked in the United States must be labelled to show they are colored.

DARJILING PLANTERS' ASSOCIATION.**Annual General Meeting.**

Extracts from proceedings of the Annual General Meeting of the Association held at the Club, on Thursday, the 27th February 1907:—

Ceylon Import Duty.

The Chairman said:—The question of the import duties on Indian and Ceylon teas entering the two countries respectively has constantly engaged the attention of your Committee, and has also been the subject of considerable correspondence between the Assam Branch of the Indian Tea Association, the Indian Tea Association, and Government; but hitherto, I regret to say, no redress of the injustice being done to India, has been obtained.

At a meeting of your Committee held on October 27th last, it was resolved that I should address the different Tea District Associations with a view to taking united action on the subject.

Accordingly on November 5th, I wrote a circular letter to the 18 different Tea District Associations of India, suggesting that the Planters' Association of Assam, as the Premier Tea District of India, should be asked to write on behalf of all the other Associations to the Indian Association, Calcutta, urging that further vigorous steps should be taken in the matter.

The Assam Association replied approving of the suggestion of combined action, but deciding to defer doing so until a definite reply had been received to a letter addressed by the Indian Tea Association to the Government on the subject, on the 28th June last. Subsequently a reply, dated December 4th, was received from Government, stating that the Secretary of State for the Colonies did not see his way to re-opening the question at present.

I think you will agree with me, gentlemen, that this is most unsatisfactory, and I think the agitation should be continued until the injustice is redressed.

At the present time the Planters of Ceylon are clamouring for increased facilities for the importation of labour from Southern India for the purpose of working their estates whilst placing a prohibitive duty on Indian Tea entering the Island, their own tea at the same time entering India practically free.

A poll tax levied on every coolie emigrating from India to Ceylon, would, I think, soon bring them to their bearings.

I trust the Assam Association will again take the matter up at their forthcoming meeting on the 1st prox. and initiate some combined action to be taken by the whole of the Indian Industry.

The report of the Committee of the Ceylon Chamber of Commerce for 1906 states:—

RUBBER.—The export figures of this article, which have been based on entries passed at the Customs for Ceylon Produce, amount to 417,661 lbs., as against 168,547 lbs. during 1905. From the very material increase as shewn above of 249,114 lbs., some 90,000 lbs. representing Straits Rubber re-exported must, however, be deducted. This produce has been coming in with gradually increasing quantities, and the larger parcels offering have induced more general competition and brought foreign orders to this market. The supplies for the first-half of the year were short, as must always be the case with this product during the dry weather, and the bulk of the crop was delivered between June and December. The prices for the previous year were not maintained and ranged from Rs.4 paid in January to Rs.4.25—4.30 paid in June down to Rs.4.10 in August and Rs.3.80—3.85 in December. The fall at the end of the year was chiefly due to the decline in the home market, and the high rate of exchange then ruling affected the prices to some extent. The quality of rubber was generally good, the bulk being comprised of sheet and biscuit; crepe and block were not manufactured to any extent, though some very fine samples of these were produced. Worm rubber was made on one or two estates, and the prices realised were always rather more than the current prices ruling for biscuit or sheet. Scrap rubber was generally not very clean and contained a fair quantity of foreign matter, and producers would do better to have this grade cleaned or converted into crepe, for which grade there is a good general demand springing up.

THE PLANTERS' ASSOCIATION OF CEYLON.**Meeting of the Committee.**

Extract from Minutes of proceedings of a meeting of the Committee of the Planters' Association of Ceylon, held at the Victoria Commemoration Buildings, Kandy, on Friday, the 8th March, 1907, at 3 p.m.

ELECTION OF SECRETARY.

The Sub-Committee appointed by the Committee of the P. A. to consider applications for the post of Secretary of the P. A. submitted the name of Mr. Alex. Wardrop, Kuda Oya Estate, Hatton, as the most suitable applicant for the post.

The name of Mr. Alex. Wardrop then having been put to the meeting, he was unanimously elected Secretary.

LABOUR.

Re-elected members for the Coast Agency Committee with additions, for the current year, and also re-elected members for the Labour Sub-Committee.

Read letter from Government (in reply to Resolution sent in on the subject of the provision of funds for working the Coast Agency) intimating that H. E. Governor regrets that he can hold out no hopes of the collection of such a cess as is proposed for the Labour Agency being undertaken by the Government, adding that the work of collection would entail considerable expense and that it would be more suitably carried out by the Association.

Resolved—That a Sub-Committee consisting of the Acting Chairman and the Planting Member in Council, Messrs. Alex. Wardrop and J. B. Coles and Mr. Alex. Fairlie, the Chairman of the Chamber of Commerce, be appointed to approach Government on the question of the Coast Agency.

Read and submitted letters from Messrs. J. P. Iryan and G. H. Hughes and Mr. C. E. Welldon *re* the labour question.

PROPOSED PEST ORDINANCE.

Resolved :—That the Secretary do obtain copies of the amended Pest Ordinance and send to the District Association with a letter representing that they will forward suggestion to the Secretary, P. A., to be passed on to the Planting Member in Council.

Meeting of the Thirty Committee.

Extract from Minutes of proceedings of a meeting of the "Thirty Committee" appointed to administer the proceeds of the Export Duty on Tea levied under Ordinance No. 4 of 1894 for increasing the consumption of Ceylon Tea in Foreign lands, held at the Victoria Commemoration Buildings, Kandy, on Saturday, the 9th March, 1907, at 7-30 a.m.

TEA CESS.

Intimated that the following resolution passed at the Annual General Meeting of the Planters' Association on the 8th February had been sent to Government, *viz* :—"That this Association regrets the decision of the Secretary of State for the Colonies to stop the Export duty on Tea at the end of 1908, and would express the hope that if, when the time arrives, a large majority of the Tea producers are in favour of its retention, he will reconsider the question."

Resolved.—That a Sub-Committee be formed of Messrs. James Westland, W. Sinclair, W. L. Strachan, with the Secretary, P. A., to formulate a scheme for pushing the sale of cardamoms.

The Chairman of the Ceylon Chamber of Commerce, Mr. A. Fairlie, estimates that there are now probably 100,000 to 120,000 acres of Para Rubber under cultivation in Ceylon, and states that when estates were in bearing the cost of production will not exceed 12 annas to Re.1 per lb.

TEA.

The British Tea Duty.

The following memorial has been addressed to the Chancellor of the Exchequer by the Indian Tea Association (London) and the Ceylon Association in London:

The Right Honourable Henry Herbert Asquith, K. C., M. P., Chancellor of the Exchequer.

Sir,—We the undersigned Associations, representing producers of tea in India and Ceylon, have the honour to address you on the subject of the import duty on tea.

In 1908 and 1904, we memorialised the then Chancellor of the Exchequer, and again in March last we had the honour to address you pointing out that for eleven years previous to 1901, with a duty of 4d. per lb., the increase in consumption of all teas in the United Kingdom averaged five million lbs. a year but since that date, until last year, with the duty at 6d. to 8d. per lb., consumption had remained almost stationary. That the check in consumption was due to the higher duty seems to be proved by the fact that the remission of 2d. per lb. by your predecessor in 1905 and of 1d. by yourself last year has had the effect of increasing duty payments no less than 11,000,000 lbs. as the following figures for the calendar years show:—

1901	...	...	...	255,878,082lbs.
1902	...	...	...	254,440,188 "
1903	...	...	...	255,365,958 "
1904	...	...	...	256,660,268 "
1905	...	...	...	259,090,380 "
1906	...	...	...	270,090,895 "

It is necessary, however, to point out that some part of this increase is probably due to the replenishment of duty-paid stocks, which had been reduced to the smallest possible limit for some time previous to the introduction of your last Budget, on account of a well-founded anticipation of a reduction in the duty.

We would further bring to your notice that previous to the imposition of the "War Tax" in 1900, of which 1d. it must be borne in mind still exists, there had been a regular increase in the per capita consumption of tea.

The maximum was reached in the year 1901, but since that year there has been a decrease until last year, the figures being as follows:—

				Per head.
1901	..	..	..	6.16
1902	..	..	..	6.06
1903	..	..	..	6.02
1904	..	..	..	6.00
1905	..	..	..	6.00
1906	..	..	..	6.18

It will be seen that the per capita consumption last year is practically the same as it was in 1901, and although we do not claim that the increase will go on to an indefinite extent, we do state that there is no reason why it should not increase to the level of the consumption in Australia and New Zealand, where the per capita consumption is 7lbs. and 6.4lbs. per head respectively. An increased consumption of many millions of pounds of tea in the home market may reasonably be expected if only a further reduction in the duty can be obtained.

Further, we would like to point out that the present duty is equal to a tax of 75 per cent. on the average value, and, as stated in your Budget speech last year, it is "still by far the highest in proportion to its value of all the taxes levied on articles of food apart from alcohol. "Coffee bears a tax of 25 per

cent. and cocoa only 13 per cent. Consequently, the principal temperance beverage of the country bears an unduly heavy impost. A heavy duty is apt to defeat its object, *viz.*, to increase revenue, by reducing the consumption and thereby curtailing its productive value.

It is important to state that the reduction of the duty by 1d. per lb. in April last was of a too low monetary value to have any sensible effect upon retail prices of an article which is so generally sold across the country in quarter-pound and even two-ounce packets. The force of retail competition, however, undoubtedly compelled distributors for a time at least to give better tea at the old prices.

We may mention that the rise in duty affected the tea-producing industry very severely, and if it had not been for the activity of those engaged in pushing tea into new markets, in several of which there is no duty levied at all, and the good fortune that these new markets responded to the efforts made, a very grave loss of income would have been inflicted on those who derived their living from tea gardens, to whom a further reduction of duty would be only an act of bare justice.

We beg to remind you that it has been clearly demonstrated that an excessive duty not only injures the consumer, but also the producer, which fact you emphasised in your Budget speech last year in the following words: "Again an excessive duty on tea injures the producer as well as the consumer, and in this case, as I think my predecessor pointed out last year, the producer in nine cases out of ten is one of our fellow-subjects developing in India or Ceylon the resources of the British Empire." There is, therefore, no occasion for us to put forward further evidence on this point.

From the Imperial point of view, we would respectfully bring to your notice that the tea industry has been of material benefit to India and Ceylon. Large tracts of unhealthy waste land have been brought under cultivation, contributing substantially to the land revenue of the Empire.

Hundreds of thousands of native labourers have been removed from the congested districts and are now employed on tea estates, or comfortably settled down in villages in hitherto unexplored jungle land. This enterprise has been the means of opening out railway communication in both countries, and is by far the most important industry in the province of Assam and in the Island of Ceylon.

In conclusion, Sir, we would urge on you the inexpediency of imposing on any article of food, especially the working man's teetotal drink, a burden as great as that which tea has now to bear. A burden which, at the same time, weighs heavily upon a great industry now almost entirely in British hands, built up by British energy, and on which British capital of over £35,000,000 has been expended.

We, therefore, trust, Sir, that you will be able, in the present year, to make a further reduction in the existing duty.

We have the honour to be, Sir, your most obedient servants,
For the Indian Tea Association (London).

SINCLAIR MACLEAY, *Chairman.*

J. BUCKINGHAM, *Secretary.*

For the Ceylon Association in London.

NORMAN W. GRIEVE, *Chairman.*

WILLIAM MARTIN LEAKE, *Secretary.*

The Pasteur Institute of Southern India, Coonoor, was opened on April 1st, 1907, for the treatment of persons who have been bitten by rabid animals.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

VOL. II. No. 4.]

MAY 1907.

[PRICE AS. 2.

THE U. P. A. S. I.

(INCORPORATED.)

Madras Planters' Labour Act.

Though no final reply has been sent to the letter from the Acting Chief Secretary to the Government of Madras, Judicial Department, referred to in last month's issue (Vol. II., No. 8, p. 61) it may be said that the only opinions recorded are in favour of giving the proposed amendment up rather than accept it with the reciprocal obligation suggested by the Government. It is necessary to allow time for the receipt of other expressions of opinion before committing the U. P. A. S. I. to support of this. Meanwhile, to a similar letter from the same source the Hon. Secretary of the Wynaad Planters' Association replied as follows :—

"I have the honour to acknowledge receipt of your letter, Judicial Department No. 1855—1, of 22nd ultimo, and will place same before members of this Association at the next meeting held.

"In the meantime I would point out that Planters in this District would prefer to do without the proposed amendment to Section 29, offered by Government, rather than accept it with the very dangerous liability now suggested.

"This Association favoured the asking for the withdrawal of the Act, instead of its amendment; and never thought highly of the proposed amendment, which in practice could prove of little or no value.

"At the meeting held last year of the United Planters' Association of Southern India, at Bangalore, our delegate, Mr. C. E. Abbott, voiced the general opinion in the Wynaad as follows :—

'Government... has offered to allow us to proceed against the coolies ourselves. Now that is utterly futile. You would have to take, perhaps, 100 contracts to court, have petitions written out on stamped papers and get warrants issued; then you would have to go to court, day after day, when the coolies were brought in one by one. But even if a Planter had time to do all this I maintain that nobody but the Maistry who actually handed over the money, dare take out warrants for his coolies; there is a special penalty of Rs.50 in the Act, for arresting the wrong man.....

'And in cases where although the right man has been arrested, but he denies his identity, and is unknown by the Planter, identification by means of thumb impressions has hardly advanced sufficiently in India to be relied on in small local courts where these cases are tried.'

Coffee and Pepper.

Writing on the 18th April 1907 to the Secretary to the U. P. A. S. I., the Director of Agriculture, Madras, observed :—

"Mr. T. F. Main, Assistant Inspector-General of Agriculture, proposes to pay a visit to the chief coffee and pepper growing districts of the Madras

Presidency, next month, to study the conditions of the cultivation of those crops.

"One purpose of this enquiry is to obtain such local information as will enable the experts of the Agricultural Department to endeavour to help these industries both in Madras and Mysore as regards insect pests and plant diseases.

"It would be of much assistance to me in drawing up a programme for Mr. Main, if you could give me a rough idea of the typical centres which might usefully be visited by Mr. Main in this connection, and also give me the names and addresses of the Secretaries of the District Associations.

"The favour of a very early reply is requested."

District Associations were at once communicated with, and the Director of Agriculture was assured of willing co-operation with Mr. Main.

That gentleman decided to visit Mysore and Coorg first, and on arrival in Bangalore he consulted with Dr. A. Lehmann, Agricultural Chemist to the Government of Mysore. These two gentlemen visited the Secretary, U.P.A.S.I. on the 28th April, and were informed of the above communication from Madras: Mr. Main proceeded without delay to the coffee and pepper districts of Mysore and Coorg, and decided to settle his programme for planting districts in the Madras Presidency after hearing from the Director of Agriculture there. His tour will probably be continued until the monsoon breaks.

It was announced in various newspapers lately that Mr. Main was likely to be deputed to make a special inquiry into complaints of adulteration of various Indian products, such as jute, &c., but, for the present at least, this scheme has fallen through.

To Popularise Coffee.

In last issue (Vol. II., No. 8, p. 64. *et seq.*) correspondence from Mr. John C. Sanderson, the representative of the U. P. A. S. I. on the London Chamber of Commerce, was published. Mr. Sanderson has since sent further letters on the same subject. Writing on the 22nd March 1907, he said:—

I confirm my letter of last week and have now the pleasure to inform you that the London Chamber of Commerce has arranged to hold a meeting on Monday, April 8th, 1907, when the members of the Coffee Section will discuss "whether it is possible to take any steps for popularising the use of Coffee in the United Kingdom." By this mail I am forwarding you a copy of last Saturday's "Grocer," on page 679 you will find a letter *re* the "Sale of Coffee."

The letter referred to is as follows:—

THE SALE OF COFFEE.

SIR,—My attention has been directed to a letter which appeared in your issue of March 9th, signed "Dorset," who states that his customers are in the habit of complaining that coffee causes backache.

There can be no suggestion that this is due to the alkaloid caffeine, for this appears under a different name and in greater amount in the infusion of tea, and in cocoa also. Caffeo-tannic acid is another constituent of coffee which might be blamed, did we not know from experiment that it is even less likely to create disturbance than the similar body found in tea, especially the coarser growths of India and Ceylon. The only other possible delinquent is a substance called caffeon, developed during the roasting process, and to which the decoction owes its fragrance and character. Pharmacological experiment has shown that Caffeon quickens the pulse, acting as a diffusible stimulant, and bringing a glow of warmth to the surface of the body. It has never been stated that it leads to any untoward symptom. All the other elements entering into the composition of the coffee berry are of the simplest and most harmless kind, against which no allegation would hold for a moment.

Were the experiment that is continually being practised upon the people of almost every civilised nation not sufficiently convincing as to the innocuous character of coffee, we might appeal to the scientific observers who have been investigating the action of caffeine, cafeeo-tannic acid, and cafeeon in many a laboratory, they would give us assurance.

They would also tell us that coffee acts as a diuretic, stimulating the action of the kidneys to a valuable extent, without creating by-effects that would contraindicate its use in cases of heart or kidney diseases of an advanced type. It is used medicinally in cases of collapse, and during the attempt at resuscitation in the apparently drowned or in the victims of profuse hemorrhage. Coffee is also prescribed by members of the faculty as a nerve-pacifier in cases of headache and neuralgia, while every coffee drinker knows the delightful feeling of refreshment and well-being with increase of mental vigour that follows the indulgence in his favourite beverage.

If coffee were the cause of backache to any appreciable extent, our sympathies should go out to the phlegmatic Dutchman and to our cousins in the United States of America, whose consumption of coffee far exceeds our own. As we hear no complaints, however, it does not appear that they stand in need of our sympathy.

So different are the products sold as coffee, or something to take its place in one form or another, and so inferior the result of roasting even fine berries, when they are first ill-treated in the roaster, and then sold in a stale condition, often mixed with that doubtful product chicory, that I fear good coffee is being made to bear the brunt of blame due to these circumstances, and not to any demerit in itself.

Let the grocer roast and blend his own coffee, of high or low grade to suit his customer's pocket, but let him sell it fresh and free from chicory, and I venture to say he will hear nothing of backache as a reproach, while it is not unlikely he will listen to more laudatory encomiums lavished upon it than upon all his other goods put together.

Finally, I would say coffee is no longer upon its trial as a beverage. It has graduated with honours, and it is only because the people of the present generation have not been allowed to become acquainted with its virtues at its best by the majority of grocers that a single word is heard against it.

I am, &c.,

W. G. McDOWELL, L.R.C.P. & S.,

Medical Director.

Incorporated Institute of Hygiene,

84, Devonshire Street, Harley-Street, W., March 12.

In a letter dated the 5th April Mr. Sanderson remarked:—

"I confirm my letter of 27th March and now enclose notice of meeting of the Coffee and Cocoa Trades Section of the London Chamber of Commerce to be held on Monday next. I quite hope to have a full attendance of Brokers and dealers and some importers. I am posting you a copy of last week's 'Grocer'—on page 851, there is a short article referring to the meeting.

"P. S.—Since writing the above I have seen Mr. Brook Mockett and Mr. Elliot, and they have promised to attend the meeting."

[INCLOSURES.]

Extract from L. C. of C. Agenda.

CONSUMPTION OF COFFEE.

To discuss whether it is possible to take any steps for popularising the use of Coffee in the United Kingdom.

Extract from "The Grocer."

"We have called attention to the fact that negotiations have been proceeding during recent months with the object of promoting a campaign in favour of coffee, to foster the sale of this much neglected article in the United Kingdom, and we are glad to learn that at last there is some prospect of these negotiations having a tangible result. Efforts have been made to enlist the co-operation of importers, brokers, wholesale houses and retail distributors, with the result that a meeting of gentlemen interested in the trade with those concerned in the production of coffee has been convened to be held at the offices of the London Chamber of Commerce, Oxford-Court, Cannon Street, London, at 8-30 p.m. on Monday, April 8. The consumption of coffee per head in this country, already small, is slowly diminishing, and there is no doubt that if the sale of coffee is to develop as it ought a well-sustained effort to promote its popularity will have to be made by those interested in its production and distribution. The use of chicory with coffee may, to some extent, be responsible for its dwindling sales, but there can be no doubt that the indifferent and unenterprising manner in which many grocers have conducted this department of their business has also contributed to the downfall, and we hope that the forthcoming meeting, coupled with the interesting letters on the subject of coffee-roasting which have recently been published in our pages, may induce grocers generally to show more enterprise in fostering the demand for this commodity. There is certainly room for a substantial increase in the sale of coffee in this country."

The British Tea Duty.

In the April number the memorial of the Indian Tea Association (London) and the Ceylon Association in London to the Chancellor of the Exchequer was published, and the present issue contains a similar memorial submitted by the Anti-Tea-Duty League. The latter was kindly sent to the Association by the Secretary to the League, who wrote hopefully of the prospects of a reduction of the duty, by a penny at the least. Since then the Budget has been presented to Parliament, and the Chancellor of the Exchequer has announced no reduction. He has gone the length of suggesting that it might have been possible to take one penny off it, but has intimated that this would not have benefited the consumer.

Ceylon Import Duty on Tea.

In a slightly modified form, the draft letter printed on pp. 62/63 of the April number (Vol. II., No. 8) has been approved by almost all the Associations concerned, and it is hoped that in a very short time the list of adherents will be complete, so that the Indian Tea Association, Calcutta, may be moved to bring the question of the Ceylon Import Duty on Tea before the Secretary of State for India, through the Government of India.

Scientific Publications.

In the present issue Dr. Harold Mann's second monograph on the Fermentation of Tea is reprinted, by kind permission of the Indian Tea Association, Calcutta. In view of the interest and value attaching to this and similar treatises by the scientific staff of the I. T. A., that Association was asked to kindly sanction their republication in the *Planters' Chronicle* and the necessary authority was given with a promptitude that greatly enhances the Editor's appreciation of it. He takes this opportunity of tendering his thanks publicly to the Indian Tea Association and has no doubt that his appreciation of their courtesy will be shared by all connected with the U. P. A. S. I. That the present number of the *Chronicle* should run to unusual length, is a necessary consequence of the inclusion of Dr. Mann's instructive treatise; but to tea planters at least no apologies need be offered. As regards Coffee and Rubber and other products, it is hoped that as the *Chronicle* gains strength it will be able to do equal justice to any special scientific treatises that may be available from time to time. The chief aim in all such cases will be to help planters to file such publications in a convenient form for ready reference.

MEETINGS OF DISTRICT ASSOCIATIONS.

South Mysore Planters' Association.

Minutes of the Forty-third Annual General Meeting, held at Saklasapur on the 28th March, 1907.

PRESENT :—Messrs. J. G. H. Crawford (President), G. Anderson, C. I. E., J. E. Butcher, R. Taylor (M. Woods & Co.), W. L. Crawford, S. Sladden, Capt. E. C. Forster, W. F. Scholfield, C. Lake, T. Anderson (Hon. Secy.). Visitor—Rev. J. Redmond.

Notice convening the meeting having been read, the minutes of last meeting were confirmed.

President's Address.—Gentlemen,—At this our Forty-third Annual General Meeting we have an unprecedentedly bad season to look back upon, to many of us the most adverse ever experienced, and to not a few matters already bad have been greatly aggravated by the unexpected and disastrous failure of the firm of Messrs. Arbuthnot & Co., the complications resultant on which I need not allude to as they are too well known to require repetition.

U. P. A. S. I.—It is with extreme regret I have to inform you that Mr. J. A. Harris, who has done such good work, not only for this Association but in the interests of our community at large, has had owing to ill health to resign the chairmanship of the Parent Association and proceed Home to recruit. That the voyage and his stay in England will prove beneficial I truly hope, and feel sure that you will all join me in wishing him a speedy restoration to health and strength, and a pleasant time in the Old Country to both himself and Mrs. Harris.

While on this subject, I would seriously call your attention to a paragraph in Mr. Harris' last letter to the U. P. A. S. I., as I think it vitally concerns our industry. In it he says that the opinion that coffee is insufficiently advertised appears to becoming more pronounced and it is thought that unless steps are taken to remedy this, the beverage will be held in less popular favour than even at present. He then goes on to say that the dealers, who are as much interested as ourselves, should advertise, but that, if they fail to do so, it rests with Planters to evolve some remedy and trusts that at the next U. P. A. S. I. meeting the subject will receive the consideration it deserves, as the increased consumption of coffee is of the greatest moment to us. I cordially support this suggestion and recommend it seriously to your attention.

Prospects.—The outlook on the whole for 1907-08 is good, and granted that showers fall soon high average crops should be the result. Prices have somewhat improved, I am glad to note, for good parchment coffee, not only on the Coast but in London; and this, I trust, in spite of the unprecedented crop coming from Brazil, will be maintained.

Scientific Officer.—This subject was brought to your notice previously, and was discussed at the last U. P. A. S. I. meeting, but owing to the loss of capital attending Messrs. Arbuthnot & Co's failure and differences of opinion as to the capabilities of one man to do justice to such a large district as the whole of S. India, has lately been in abeyance. Most of you will admit that S. India is a large place with divers climates and conditions, still I think one capable and energetic man as a beginning to initiate and have carried out experiments on different properties in the planting zones of S. India could but be highly beneficial and instructive. We have the success attending a similar experiment in the Tea Gardens of N. India to prove what can be done; the area there to be treated and looked after is, I think, larger than in this part of the Continent and in spite of that it was done by one man and successfully so. It behoves us to follow the example of the North and at the coming U. P. A. S. I. meeting try and arrive at some definite conclusion on the matter and not be put off with the idea that a single man to commence with would not meet the requirements of the planting tracts of S. India.

Official Visits, Magistracy, etc.—We have lately had the pleasure of welcoming the British Resident and the Dewan, Mr. V. P. Madhava Rao, to our District. Tours of inspection or even unofficial visits to the planting districts by the Resident and high officials of the State can but result in good between the people and Government, and it is our earnest hope that in the future they will be frequently repeated. Mr. P. R. W. Wetherall, our popular Deputy Commissioner, is, I understand, shortly going Home on a well-deserved holiday. He will go with the good wishes of all communities and the sincere desire that on his return to India the Government of H. H. the Maharaja will permit him again to take up work in Hassan, which District he has been in charge of and administered so ably for some years past.

Lawlessness in the Mulnaad, to which this Association has more than once drawn the attention of Government, has greatly decreased, I rejoice to say, owing to the energetic measures adopted by the local officials concerned in the suppression of the same. Outbreaks like those of a year or so ago would be rendered, I venture to think, less liable were the Magistracy of the District granted enhanced powers and so enabled to deal drastically with acts of violence, powers shall I say that used to be granted to and wielded with such excellent effect by the old Commissioners.

Social.—That H. H. the Maharaja should have been selected by the King-Emperor for the distinguished Order of the G. C. S. I. has met with universal approval and satisfaction, and our community has now the greatest pleasure in publicly congratulating His Highness on the honour conferred. It would also at the same time tender its most sincere felicitations to H. H. and his Durbar on the formation of a Legislative Council for Mysore, an Assembly that we all feel assured will tend even more than in the past to keep Mysore in the front rank of progress and holder of the honoured position of the most progressive and best administered State in India.

It was with extreme regret that we all noted the death of Mr. Beauchamp, of the *Madras Mail*, while still a young man. During his tenure of office the *Mail* had always been a staunch supporter of planting interests and a sympathizer with our community in its successes and reverses; in him all planters have lost a true friend, and our sympathy as a body is with his family and relatives in their great sorrow and bereavement.

Rubber Lands.—In this respect I cannot help thinking that there is or has been some misunderstanding, as so far I am told practically no desirable forest has been granted for this industry. The Dewan, when interviewed on the subject at Saklasapur on the 25th February, was sympathetic and in one instance recommended for sanction a block of land of some 200 acres. This, I trust, will speedily be followed by similar or larger grants for rubber planting.

Conclusion.—As our Honorary Secretary has dealt fully with all other subjects of interest, I can but conclude by heartily thanking you for the compliment conferred in making me your President for the past year and tendering you my resignation. My post has been rendered an extremely easy one owing to the ability and interest displayed in the affairs of our Association by Mr. Thiselton Anderson, to whom our sincerest thanks are due. His office has entailed a lot of work, which has been thoroughly and conscientiously performed often in face of many worries and difficulties.

Honorary Secretary's Report for the Year 1906-07.

Mr. Chairman, Gentlemen:—During the season under review we have had the pleasure of welcoming Messrs. F.M. Hamilton and M. J. Woodbridge as new members but, owing to two resignations having taken place, the Association roll remains the same as last year. The accounts have been placed on the table for the favour of inspection, and I will ask you to kindly appoint auditors to go over them.

From these you will see that although at first sight the balance in hand is not a very large one, this is owing to the fact that, of the Association funds which were with Messrs. Binny & Co. at the time of their suspension, only

one dividend of 25% has been declared and paid, but I am glad to say that there appears to be every chance of, if not the whole, the greater portion of the remaining 75% being recovered in due course.

Owing to the whole funds of the U. P. A. S. I. being tied up by the lamentable suspension of the good old firm of Messrs. Arbutnot & Co., the Secretary has called upon District Associations for a portion of their next year's subscription in advance in order to meet current expenditure and in response to this appeal, I have remitted the sum of Rs.200 so that if the over-due subscriptions from members which amount to Rs.375 be added to the foregoing, our Association has no reason to complain of its financial position seeing that the subscriptions for the year 1907-08 are due on the 1st of next month. Before proceeding further I would beg to point out that the subscriptions of some members have not been paid for the last three and in some cases even four years, and I will ask you to instruct the new Honorary Secretary as to what course he should pursue with regard to these overdue subscriptions.

During the last year the Association held three Special General Meetings principally to consider:—

1. The question of an Experimental Farm.

2. As to whether this Association should support the new Scientific Officer scheme which was mooted at the Annual General Meeting of the U. P. A. S. I. in preference to the farm above referred to.

3. The Government Proceedings and Orders relative to the recommendations of the Inspector-General of Police with regard to the suppression of Crime in the Mulnaad and the unlicensed possession of fire-arms.

Seeing that reports of these meetings have already been circulated I need only touch on the last of these subjects.

Our thanks are due to Government for its prompt attention to our representations; the Census of fire-arms has already been carried out as recommended by the Inspector-General of Police, and I have been given to understand that an extra Police Inspector is to be appointed shortly to Yeslurpett. These two excellent arrangements should greatly tend towards the solution of the difficulty.

On the 25th February last Mr. V. P. Madhava Rao, C. I. E., Dewan of Mysore, while in Saklasapur kindly consented to meet our Committee and accorded a most kind and patient hearing to the representations made.

With regard to rubber lands, on having a concrete case laid before him explaining the manner in which the Forest Rules had been made oppressive, the Dewan at once instructed the Inspector-General of Forests for the present to make a grant of 200 acres from the Forest Reserve referred to and if the experiment proved a success, allot the remainder of the 500 acres which had been applied for.

From his experience in Travancore, he was aware that Pará rubber could only be advantageously grown on the very best soil and he promised to grant small blocks of Forest Land in different portions of the State to planters of acknowledged ability for experimental purposes, and on the success or failure of these experiments the future policy of the Government would be based.

Although the Arsikere-Mangalore Railway has been consigned to the uncertainties of the future by the Government of India owing to, in its opinion, more important lines taking precedence, I am glad to be able to inform you that the Dewan at our interview stated that the Durbar has in contemplation a branch line of Railway linking up Mysore with Hassan and extending from that important centre either to Arsikere or through Chickmagalur joining the Southern Mahratta Railway at Birur and that he hoped that in a very few years its completion would be an accomplished fact. This is a clear indication of the solicitude of the Government of H. H. the Maharaja for the outlying portions of this enlightened State.

As you are aware, this Association has agreed to subscribe from its funds the sum of Rs.100 per annum for 5 years towards the scheme for the appoint-

ment of a Scientific Officer for the whole of S. India, and a further sum of Rs.585 per annum has been guaranteed by individual members for the same period. As there are still several members who have not yet placed their names on this list, I must ask them in view of the immense benefits which are certain to accrue from this appointment, to each and all subscribe their "widow's mite" to the above scheme, as it is only by combined and sustained effort that the fullest results can ever be attained.

The representations made to Government during the year have met with its usual sympathetic consideration and I am glad to be able to report:—

1. The excessive rates which were charged at the Dudda Toll-gate at its inauguration have been reduced for a period of two years.

2. The Anjur bridge has been completed and was declared open by the Dewan during his recent tour, thus obviating one of the most dangerous crossings in Mysore.

3. The Durbar obtained for the planting industry a supply of Abyssinian Coffee seed upon which I am glad to be able to report that although owing to the long time this seed was *en route* most of it did not germinate, still several planters were fortunate in having obtained a few seedlings and from the produce of these, the original strain will have been reintroduced, let us hope for the benefit of all.

4. The reduction of the Stamp Duty on Agreements executed for service on estates is still under the consideration of Government.

Our thanks are due to our local authorities for their efforts with regard to Plague prevention, which have kept our district free from that dreaded disease.

The fact that the hot weather water supply in the Mulnaad has fallen off during the last few years has been wrongly attributed in the press and elsewhere to deforestation for the planting of Coffee and Cardamoms. Far from this being the case, there is no denudation of forests by the cultivation of either of these products, in fact it is the constant endeavour of the planter to conserve moisture in the soil by the planting of only the best classes of trees as shade, the breaking of the surface of the soil and every other method which long experience has taught will bring about the desired effect.

The principal causes of this lowering of the subsoil moisture may be classed as follows:—

1. Faulty distribution of rainfall occasioning alternate periods of drought and saturation.

2. The fact that deficiency in one year's rainfall is only compensated for by a succession of good years.

3. The falling into disrepair of the numerous Mulnaad tanks owing to their being breached or subjected to the gradual process of silting up.

4. The harmful effect of fires in jungle and grass land which remove the protection of undergrowth and grass at a time when it is most required, permitting the soil to become baked and impervious and subject to wash during the early portion of the monsoon.

In conclusion I beg to report that the new Kenchammana-Hosakote road to Saklasapur, *via* Arthuvully and Kogarvully, has been finished as far as the stream at Halebelur. There is now only a small portion yet to be made and it is to be hoped that the authorities concerned will see their way to grant the necessary funds for its early completion, as not only are the gradients far easier than those on the existing road *via* Bahl, but the new road will mean a saving of nearly 5 miles for traffic from Saklasapur to Kenchammana Hosakote and Coorg.

In placing my resignation in your hands, I have to thank the President and members of committee for their cordial help and assistance and to ask you to kindly overlook any shortcomings in the discharge of my duties which may have occurred as being due to inexperience and not to any slackness on my part.

I do not hold myself open for re-election, as although I have found the work extremely interesting, I cannot afford the necessary time.

Messrs. Scholfield and Lake having audited and passed the Accounts, the reports were adopted.

Legislative Council.—The attention of the meeting having been drawn to the non-recognition of the planting industry on the recently formed Mysore Legislative Council and the matter having been discussed—*Resolved*:—In congratulating the Government of Mysore on the formation of a Legislative Council, this Association notes that so far no provision has yet been made relative to the large and growing interests of Commerce and Industry, especially mining and planting, and it is confidently trusted that these most important interests will not be overlooked.

Overdue Subscriptions.—The sum of Rs.375 being overdue by various members of the Association and the desirability of measures being taken to try and collect this sum, the Chairman having intimated that he had written the members concerned—*Resolved*:—To await replies to the Chairman's letters and leave the Committee to deal with the matter.

Jungle Fires.—The Honorary Secretary was requested to again bring this matter before Government and to draw the attention of the Deputy Commissioner, Hassan, to the letter addressed to him on 26th September 1906.

Rubber Lands.—Several members having spoken as to the unexplainable delay experienced in the granting by Government of the rubber lands applied for—*Resolved*:—That the Honorary Secretary be asked to write to the Dewan pointing out the delay which planters experience in getting the lands they apply for, especially mentioning the case of Mr. Scholfield as a concrete example where nothing has been done although the land was applied for 14 months ago.

Railways.

Resolved:—That this Association hopes the Mysore Government will speedily carry out the proposed Railway from Mysore to Hassan and to such further point as may be decided on, as intimated by the Dewan at Saklasapur on 25th February 1907.

Advertising Coffee.

Resolved:—That this meeting fully endorses what Mr. Harris wrote on this subject in his last letter to the U. P. A. S. I. and further that the matter be taken up at the next meeting of the U. P. A. S. I.

Scientific Expert.

Resolved:—That this Association confirm their action in trying to secure a Scientific Expert and the Honorary Secretary be asked to approach those members who have not given their support with a view to increasing this Association's subscription.

Import Taxes on Seeds.

Resolved:—That the Honorary Secretary write to the Secretary of the U. P. A. S. I. and desire him to instruct the Planting Member to take an early opportunity of sounding Government whether they are prepared to let in seeds of economic products duty free, seeing the introduction of rubber and other seeds is a direct benefit to the State.

Bankers.

Resolved:—That the banking Account of this Association be transferred to the National Bank of India, Ltd., Madras.

Election of Office-Bearers.—The following members were elected Office-bearers for the ensuing year:—

President: Mr J. G. H. Crawford.

Honorary Secretary: Mr. R. F. Lamb (protem.)

Committee: Messrs. E. M. Playfair, W. L. Crawford, T. Anderson, J. Hamilton, C. K. Pittock and J. E. Butcher.

The meeting closed with a vote of thanks to the Chair.

Shevaroy Planters' Association.

Proceedings of a Committee Meeting held in the Victoria Rooms, Yercaud,
April 8th. 1907.

PRESENT.—Messrs. C. G. Lechler, C. Rahm, F. D. Short and W. I. Lechler,
Chairman and Honorary Secretary.

1. Read letter No. 269 M. dated 16-3-07 from the Executive Engineer, Salem Division, informing the Association that on account of urgent repairs required to certain bridges, &c., on the Yercaud Ghaut Road, it will be necessary to close the road to traffic for one month from April 10th.

Read also Honorary Secretary's reply, dated 28-3-07 urging the postponement of repairs till May 1st.

Read also the Executive Engineer's reply thereto, dated 25-3-07, consenting to the postponement of repairs as requested.

Resolved that the Honorary Secretary's action be approved, and that the Executive Engineer be thanked for complying with the wishes of the Association.

2. The Honorary Secretary reported the resignation of the Glendower Estates and the admission of Mr. H. S. Dickens as member of the Association.

3. Read and recorded Mr. A. G. Nicholson's letter, dated 24-3-07, *re* cart rates from Station to Yercaud and Hawthorne, which seem reasonable.

4. Read and recorded letter No. 490, dated 8-4-07 from the District Forest Officer, S. Salem, announcing despatch of 300 bamboo head load tickets, and asking that the value, Rs.37-8-0, be paid into the Yercaud Sub-Treasury.

5. Read and recorded letter No. 160, dated 18-3-07 (received too late for circulation) from the Overseer, P. W. D., forwarding a tender notice for the upkeep of the Feeder roads for 1907-08.

6. Read letter dated 8-4-07 from Mr. S. M. Hight, drawing attention to the able manner in which the Station House Officer, Yercaud, worked to obtain a conviction in the recent coffee stealing case in which he was concerned, suggesting that this officer should be rewarded.

Resolved that the District Superintendent of Police be addressed, asking him to sanction the payment of a reward of Rs.25 from the funds of the Association to Ramasamy Iyer, Station House Officer, Yercaud, and that the Honorary Secretary be allowed to make the presentation publicly at a meeting of the Association.

7. The Honorary Secretary reports promises to date of Rs.95 per annum for 5 years towards the Scientific Officer fund.

8. Read and recorded U. P. A. Circulars Nos. 16 to 23.

Papers laid on the table :—

Fermentation of Tea by Dr. Harold M. Hann.

Proceedings of the Kanan Devan P. A., February 9th

Tea Circulars.

(Signed) W. I. LECHLER,

Chairman

Central Travancore Planters' Association.

The Quarterly General Meeting of this Association was held at Glenmary, on Monday, April 15th, 1907.

PRESENT :—Messrs. H. S. Holder (Chairman), W. H. G. Leahy, H. D. Deane, J. A. Richardson, F. W. LeFeuvre, F. Bissett, H. C. Westaway, E. S. Stephens, R. Roissier, Hon'ble V. B. Wilbraham, J. H. Kenyon, H. B. Kirk, (visitor) and A. H. Mead, (Honorary Secretary).

The Proceedings of last meeting were taken as read and confirmed.

Correspondence.—Read letter from Financial Secretary *re* currency crisis in Peermaad.

Resolved :—That the Honorary Secretary write to Government giving particulars of a specific case of refusal to accept Sircar Currency as brought to the notice of the meeting by Mr. LeFeuvre.

Read correspondence with Government *re* non-acceptance of cheques.

It having been pointed out by Mr. J. H. Kenyon that though Government were now prepared to accept cheques in payment of Government dues, orders had been passed that no cheques were to be cashed at the Peermaad Treasury, it was proposed by Mr. J. A. Richardson and seconded by the Hon'ble V. B. Wilbraham : "That Government be asked to reconsider their decision regarding the cashing of cheques at the Peermaad Treasury, provided money be available and on the understanding that only estate account cheques drawn on Madras are presented and that each estate should not be entitled to draw more than Rs.1,000 per mensem." Carried.

Proposed Lease of Residency Buildings.—

Read letter from Government *re* Proposed Lease of Residency Buildings.

Resolved :—That the Honorary Secretary do write to Government on the matter.

District Road Committee.—

The following resolution was proposed by Mr. A. H. Mead and seconded by Mr. F. W. LeFeuvre :—

"That in view of the intention of Government of handing over the District roads to the Association for maintenance as from the commencement of the new Malabar year, it is desirable to at once elect a District Road Committee to draw up a definite scheme for the proper working of the same." Carried.

The following Committee was then elected :—

Messrs. H. C. Westaway, H. D. Deane, J. A. Richardson, F. E. Thomas and A. H. Mead.

Dewan's Visit.—

The Honorary Secretary read out to the meeting the memorandum of district needs he had handed in to the Dewan on behalf of the Association on the occasion of his visit to Peermaad, and the reply since received from the Government to these several representations.

District Fitter Scheme :—The Chairman asked members to let him know how far the working of the district fitter scheme had been found to be satisfactory.

It was generally agreed that the scheme had worked well, but that owing to the large amount of new machinery being installed in the district and an unusual number of breakdowns, it had been impossible for the fitter to attend to every one as promptly as was desirable.

With the usual vote of thanks to the Chair, the meeting closed.

(Signed) A. H. MEAD,
Honorary Secretary.

Nilgiri Planters' Association.

Proceedings of the Fifteenth Annual General Meeting, held at Ootacamund, on the 22nd April, 1907.

PRESENT :—Messrs. E. G. Windle, H. D. Wilbraham, J. McKenzie, L. C. Liebenrood, T. J. Kenna, H. W. Sheldrich, E. F. Barber, P. M. Sathasiva Mudaliar, W. C. Deane, and C. H. Brock, (Hon. Secy).

Honorary Members—Messrs. L. E. Buckley, I.C.S., and W. Ward.

Mr. E. G. Windle was voted to the Chair.

I. Proceedings of the last General Meeting held on the 23rd October, 1906, were taken as read, and confirmed after previous circulation.

II. The Honorary Secretary then read his Report, which ran as follows :—

GENTLEMEN,—I have the pleasure of laying before you the Report for the last year, and submit for your approval the accounts, which I trust you will find in order.

The year opened with 52 members, of these 8 have died, 8 left the district and 5 resigned; 6 new members have joined, this leaves the present number of members at only 47.

The accounts on the table, which, as usual, are closed up to the 31st December last, show a cash balance credit of Rs.77-6-11, but the balance of assets over liabilities only amounts to Rs.22-8-5 as against Rs.48-18-0 at the end of the previous year.

Subscriptions.—With the new year, the graduated scale of subscriptions has come into force, as decided at the last General Meeting. A few members have not yet sent in their acreage returns, but roughly the income from subscriptions this year should amount to Rs.800 or a little more, as against Rs.648 paid and due to be paid for last year, excluding the special extra subscription which was levied to cover legal expenses. It is gratifying to note that most of the larger owners have unhesitatingly increased their support by agreeing to the increased subscriptions on large estates, and though the actual number of Members is less than it has been for several years, the subscriptions will amount to a larger sum than hitherto.

The U. P. A. S. I. has received a severe blow in having lost its reserve funds in the failure of Messrs. Arbutnot & Co., and to enable it to continue its sphere of usefulness it will be necessary for District Associations to do their utmost to increase their financial support, and it is for the meeting to decide how far this Association can increase its subscription. The Chairman, Mr. J. A. Harris, has had to resign his office, and the Vice-Chairman, Mr. A. F. Martin, has accepted the vacancy. Mr. G. Romilly has resigned his office as the Association's Representative on the Indian Tea Cess Committee, Mr. P. R. Buchanan has been nominated as his successor. A new District Association—the "Mundakayam Rubber Planters' Association"—has been admitted into the Membership Roll of the U. P. A. S. I.

A Scientific Officer.—In response to a Circular issued last year to ascertain what support this scheme would meet with in this district, only six members have declined to support it. Thirty-six members have promised to subscribe in all Rs.651, and practically all of them promise to continue this subscription for five years. In addition to these, Messrs. Volkart Bros. have offered to subscribe Rs.100 and Messrs. Parry & Co. Rs.50 towards the scheme through this Association and both of these also for five years. A few members, all of whom I think are likely to support the scheme, have not replied to the circular. The total promised now is Rs.801 the first year, Rs.796 the second and third years, and Rs.761 for the fourth and fifth year.

Act I. of 1903.—Very little has been done with reference to this Act, but quite lately the Government of Madras have written to say with reference to the proposed amendment to section 29, that if this is to be amended, so that the

Planter may take direct proceedings against the defaulting coolies who have contracted with their Maistries, then as a set off in favour of the labourer, the latter should be allowed, under Section 21, to recover from the Planter wages wrongfully withheld by his employer (*i.e.* the Maistry) and, under Section 18 to absent himself from his work, without forfeiting, to prefer any complaint he has to make against the Planter.

There are only three more subjects which require to be recorded. These are :—

Gudalur Coffee Stealing Case.—With reference to this Association's Resolution on 12th February 1906, the High Court altered the sentence of fine imposed by the Taluk Magistrate, Gudalur, to one of rigorous imprisonment for 2 months and a fine of Rs.100, in default to further rigorous imprisonment for 1 month

Returns of Tea Cultivation—As the Collectors of Districts have to send their district returns of Tea Cultivation to the Board of Revenue, Madras, not later than the 1st of April in each year, Tea Planters are requested to furnish them to the Collector at least two weeks before this date.

Remission of Assessment on Rubber Lands has been extended to all plantations of rubber on abandoned Coffee lands provided there are at least 180 trees to an acre (15 ft. x 15 ft.)

In conclusion I have to apologise to all Members if my work on the Association's behalf, during the past five months especially, has not been attended to as thoroughly as it might have been, but as I have already pointed out to the Committee, I have as much to do just now as I can conveniently manage, and I have been compelled to give less attention to the Association's work. I have also asked the Committee to arrange for some one to take my place as your Honorary Secretary.

I therefore beg to place my resignation, with those of the Committee in your hands.

(Signed) CHARLES H. BROCK,
Honorary Secretary,
Nilgiri Planters' Association.

After a short discussion on the report, it was passed, and the meeting passed a cordial vote of thanks to Mr. Brock for his work as Honorary Secretary to the Nilgiri Planters' Association, and he was requested to stand for re-election. The meeting voted an allowance not to exceed Rs.150 in the year for the employment of a writer to assist the Honorary Secretary.

III. The following were elected to serve on the Committee for the current year :—Messrs. The Hon'ble H. P. Hodgson, W. C. Deane, E. G. Windle, L. C. Liebenrood, A. F. VansAgnew, E. F. Barber, J. H. Wapshare, F. M. Cockburn, W. Rhodes James, L. W. Grey, H. D. Wilbraham, J. McKenzie, and J. Harding Pascoe. Mr. C. H. Brock was re-elected as Honorary Secretary.

Messrs. the Hon'ble H. P. Hodgson and C. H. Brock were elected to attend the next U. P. A. S. I. Meeting as delegates.

IV. **Finance.**—The Budget for the Current Year was carefully considered, and it was decided that the Association Subscription to the U. P. A. S. I. should be raised to 400 rupees.

V. **Coffee Passes.**—Read letters from Mr. A. G. Nicholson dated 23—2—07 and 11—4—07. The Meeting considered that the present check on Beat Constables was sufficient, and that any further arrangement would be likely to cause delays, and make it still more difficult to get bandy and bullock men for transport of crop than it is already.

VI. **Loss of Advances.**—Read letter from A. G. Nicholson, dated 22—2—07. The Honorary Secretary was instructed to write to Mr. Nicholson for further information as regards the defaulting Maistry.

VII. Materials for Road Repairs.—The Honorary Secretary was instructed to apply to the Collector of Nilgiris.

VIII. Proposed increase of Callout Port Charges.—Read Mr. J. McKenzie's letter dated 5—2—07. The Honorary Secretary was instructed to write the Chamber of Commerce, Calicut, for full information.

XI. Municipal Tax on Plantation.—Read letter from Mr. T. Brown, dated 16—11—06. The Meeting regretted the apparent unfairness of the tax but did not see its way to moving in the matter at present.

X. Hulikal Droog Road.—Read letter from Mr. T. Brown, dated 5—4—07. Mr. Ward pointed out that there was no reserve to the road complained of. The Honorary Secretary was instructed to write and ask Mr. Brown if the estates through which the road runs will allow catch drains to be dug in planted area, so as to protect the road from wash.

XI. District Board Membership.—Read letter from Mr. W. Mulaly dated 4—4—07. Mr. Buckley pointed out that the representation of the different parts of the district on the Board was having his attention and that every endeavour is being made now to make the Board properly representative as vacancies occur. As each vacancy occurs, the Collector will communicate with the Association prior to renominating old members or nominating new ones.

XII. Special Beat Constables on the road to Callout.—Read letter from Mr. J. H. Wapshare dated 22—2—07 and enclosures. The Honorary Secretary was instructed to forward the correspondence to the Superintendent of Police, Nilgiris.

XIII. Register of Estates and Malisries.—Read letter from Mr. E. F. Barber dated 3—4—07. The Honorary Secretary was instructed to compile a list of the Estates in the district with their English and Native names, nearest Post Office, etc., and submit it to the Association.

XIV. Attesting Officers at Nelaotta.—Read the letter from Mr. Sheldrich dated 9—4—07. The Association recommended Mr. L. C. Liebenrood as an additional attesting officer.

The Meeting concluded with votes of thanks to the Chairman and Capt. F. Copeland for the loan of the Armoury Room.

(Signed) E. G. WINDLE, *Chairman*.

(„) C. H. BROCK, *Hon. Secretary*.

Coffee shipments from Santo Domingo to Germany increased from 356,481 lbs. during the first half of 1905 to 1,208,444 lbs. during the first half of 1906, valued, respectively, at 25,164 and 76,945 dol. Shipments to the United States, 392,070 lbs. valued at 84,031 dol., show no appreciable change in quantity or value. The amount sent to France shows a decrease from 529,051 lbs. valued at 89,792 dol. to 816,527 lbs. valued at 18,344 dol; 65,607 lbs. were shipped to Cuba, and the remainder of the 2,080,870 lbs. exported was distributed among all other countries.

The coffee industry in Liberia was once a very flourishing one, but, owing to foreign competition, the value of late years has fallen considerably. Liberian coffee has an excellent flavour, and is still grown extensively by the Americo-Liberians, who, however, do not take sufficient trouble in its cultivation. Given a little more attention to this valuable product good results should be looked for and Liberian coffee might in time resume the place which it formerly possessed in the markets of Europe. About 2,000,000 lbs. of coffee are annually exported from Liberia.

INDIAN TEA ASSOCIATION, CALCUTTA.

The following are extracts from an abstract of the proceedings of a meeting of the General Committee held on the 2nd April:—

There were present: Messrs. G. Kingsley, Chairman, G. Pikford, Vice-Chairman, S. Anderson, H. W. Carr, W. D. Cowan, T. McMorran, W. Warrington, and D. Youngson.

CORRESPONDENCE WITH THE INDIAN TEA ASSOCIATION (LONDON).

Letters dated 8th and 15th March, from the Secretary to the Indian Tea Association (London), were brought up for final consideration and disposal.

Optional Bills of Lading.—In his letter of 8th March Sir James Buckingham wrote that importers on his side had now consented to state London as the first port on their Optional Bills of Lading. This would, he thought, very materially simplify matters, as teas would not now be entered by the Customs in Calcutta and Chittagong for America, the great majority of which were landed in London. If importers would state London as the first port all optional tea would be entered as for London, and the re-exports and transshipments published by the Customs in London would show the quantity sent on to America or elsewhere.

In this connection a letter of 28th March from Mr. Lockhart Smith was before the Committee. Mr. Smith thought that, if all teas shipped on Optional Bills were treated as London shipments, the shipments to the United Kingdom would be shown as considerably in excess of what actually is sent there. He thought this might have the effect of leading London buyers to understand that there would be a larger crop available than would actually be the case. The Committee considered the point suggested by Mr. Smith; but they thought that Sir James Buckingham's explanation would quite meet it, and that matters would be kept right by the periodical publication of the re-exports and transshipments by the London Customs authorities, as the quantity sent on to America and other places would then be shown.

Regulation of Sales in Calcutta.—In his letter of 15th March, Sir James Buckingham wrote that it had been suggested to his Committee that the closing of the Calcutta market from February to May must be a great hindrance to the extension of foreign trade and that buying orders from Australia and perhaps the Persian Gulf might go to Ceylon, because they cannot be regularly executed in India, so that thus the Indian market might be losing business which with a little arrangement could be retained. He had been instructed accordingly to ask the General Committee to consider the matter, and to suggest that it might be possible to arrange to hold back teas so as to allow of one sale being held in each of, say, March, April and May.

The Committee discussed the matter. It seemed to them that without the co-operation of the buyers the seller was helpless. It would not be to the interest of the latter to hold back his teas till March and the following months unless he could feel sure that when he did go to sell there would be sufficient buyers to ensure effective competition for his tea. The Committee accordingly decided to refer the matter to the Tea Traders Association for their opinion.

Final Results of Crop for Season.—In his letter of 15th March Sir James Buckingham wrote that his Committee considered that circumstances had so altered that it had become imperative to have the total crop wired to London as soon as possible after the close of the season. The London Committee thought that to enable the correct results for the season to be arrived at, all the Calcutta houses interested in tea would be glad to assist, and that in obtaining the figures for South India the United Planters' Association of Southern India would help.

In connection with this matter the Committee decided to refer the London Committee to the resolution passed at the annual meeting of the Calcutta Association held on 18th February 1902:—

"That in view of it having been found to be impracticable to obtain complete returns from producers, the General Committee be instructed to discontinue the publication of figures relating to the outturn of the crop."

The Committee thought it was not likely that they would find it any easier now than then to obtain complete returns of their crops from producers, as some were unwilling to give the figures. Again, there were concerns outside the Association—chiefly native—who could not be looked to for correct returns. The Committee accordingly thought it better not to attempt the compilation of the figures at all than publish incomplete returns.

EARTHQUAKE RISKS.

Messrs. King, Hamilton and Co. wrote on 22nd March that they had been asked by friends at home to ascertain whether, in the event of arrangements being made to cover tea-gardens and their buildings against loss or damage caused by earthquake, Agents and Proprietors of Estates would be likely to avail themselves of such protection, and if so to what extent, and whether a premium of $\frac{1}{2}$ per cent. on the declared value would be acceptable. The Committee had considered this letter in circulation and replied that they did not think Proprietors would wish to insure their gardens against damage by earthquake. They might be willing to insure the buildings, but they thought a rate of $\frac{1}{2}$ per cent. would be much too high; and also that for gardens, in the plains the rate should be lower than for gardens in the hills.

Extract from Abstract of the Proceedings of a meeting of the General Committee held on 16th April 1907:—

Indian Tea Cess Committee.—On 8th April the Secretary of the Tea Cess Committee wrote that, under the provisions of Act IX. of 1903, the five years period for which the Tea Cess was levied will come to an end on 31st March 1908. The question of the continuance of the Cess for a further period had been raised, and had formed the subject of correspondence between the Executive Committee and the Indian Tea Association (London). At the Half Yearly Meeting of the Cess Committee held on the 29th January last, there had been a unanimous feeling that the Government of India should be asked to extend the operation of the Act for a further period of five years. The General Committee of the India Tea Association, London, were also of this opinion. Before taking action in the matter, the Executive Committee asked the views of this Association on the suggestion.

The Committee heartily approved of the proposal that the Government of India should be asked to continue the Cess for five years, and in view of the importance of the matter decided to circularise members for an expression of their opinion.

Scientific Department.—On 6th April Dr. Mann forwarded copy of minutes of the meeting of the Advisory Committee on the Entomological Station of the Association held on 26th March, which were to be recorded. Investigations are being carried on with regard to the "bark-eating borer" and the "sandwich-caterpillar," and Dr. Mann proposed that, as soon as the season allowed, Mr. Antram should take up the study of green-fly. Further work on "Mosquito-Blight" and white-ants is also in view.

Scientific Department Publications.—In connection with Dr. Maun's publications, a letter was read from the United Planters' Association of Southern India asking if there would be any objection to the reprinting of these in the "Planters' Chronicle," a special section of which is given to extracts from the Proceedings and Circulars of the Indian Tea Association in so far as these relate to matters of interest to planters in Southern India. The Committee did not think there would be any objection to complying with the Association's request.

Regulation of Sales in Calcutta.—This matter was referred to at last meeting in connection with a suggestion from the Committee of the London Association that an arrangement might be made for the holding back of sufficient tea to allow of one sale being held in each of March, April and May. The suggestion was referred to the Tea Traders' Association for their opinion, as the Committee thought that without the co-operation of buyers, it would be useless to move in the matter. The reply of the Tea Traders'

Association was now before the Committee. They had considered the proposal but did not think it practicable and consequently could not recommend its being given a trial, as buyers would not, in their opinion, care to remain here merely on the chance of a few invoices of tea being in the market weekly. It was decided to communicate this reply to London.

Optional Bills of Lading.—A letter of 9th April on this matter from the Collector of Customs, Calcutta, was read. It gave the results of the endeavours made by his office to ascertain the final destination of teas shipped on Optional Bills of Lading in August and September 1906, and it appeared that out of 108 passes taken out in the 2 months by 10 shippers, the final destination of 99 had been ascertained: and in 28 of these 99 cases, the final destination differed from that originally declared.

Average Prices of Tea.—In connection with the figures regarding the prices and number of packages of tea sold in London and Calcutta during the calendar years 1905-06, which were asked for by the Government of Eastern Bengal and Assam, it had been pointed out that the figures for 1905 submitted now differed slightly from those given last year. The discrepancy arose, the Committee thought, from the figures for the *calendar* year being required by Government: this period does not correspond with the tea season, and it is somewhat difficult to get the figures for a period which covers part of two different tea seasons. This had been brought to the notice of Government, and the suggestion made that in future the figures for the season, and not for the calendar year, should be published.

Surma Valley Branch.

The following are extracts from the proceedings of a meeting of the General Committee held in Silchar on the 25th March 1907, the Hon. Mr. W.T. Cathcart (Chairman) presiding:—

CEYLON IMPORT DUTY ON TEA.

The Chairman placed before the committee correspondence that had recently passed between the Chairman of the Assam Branch of the Association and himself on the subject of a joint protest for actively pressing on the attention of the Secretary of State for India, through the Government of India, the injustice that Tea Industry of India suffers from the Import Duty imposed by Ceylon on Tea from India entering that Colony:

After some considerable discussion, the Committee decided to pass the following resolution:—"The Surma Valley Committee, while fully recognising the unfairness of the Ceylon Import Duty at present imposed upon Indian Tea entering that country, and being fully in accord with the urgency for taking all possible steps to secure its abolishment, consider that the proposal submitted by the Assam Committee, *viz.*—'That the various Local Committees should jointly memorialize the Secretary of State for India in the form of a joint protest' is outside their province, as the assistance of the Local Committees has not been asked by the Calcutta or London Associations, both of which bodies have already taken the matter in hand."

Lecture by Dr. Harold Mann.

At a meeting of all the subscribers of the Surma Valley Branch, Indian Tea Association, held on the 25th March, 1907, Dr. Harold Mann, Scientific Officer, Indian Tea Association, delivered a very interesting address on the "Factors which influence the Quality of Tea":—

Dr. Mann proceeded to remark firstly on the fact, that the value of the Scientific Department was to be measured solely by its utility to those engaged in the culture and manufacture of tea, and that no amount of results of no practical application, however interesting in themselves, would compensate for lack of such, as were of practical application, and secondly to state that correspondence in relation to planting matters would always be welcomed. He, then, proceeded to speak on "The Factors which influence the Quality of Tea." There had, he said, in the past, been many theories as to what was the

primary cause of the quality of tea- For long it was attributed to elevation on the one hand, or to high latitude on the other. The effect of the former was illustrated by the teas from the Darjeeling District, or those from the high level gardens in Ceylon, the latter by those of Upper Assam. But the importance attached to elevation had been much minimised by the results of tea-planting in Travancore, where tea, little above common, was produced on gardens, none of which were below 4,800 feet. Others had attributed the principal influence to *jât* of plant, but even here, some of the best properties in India, from the point of view of quality, were largely planted with "Manipuri" plant. Others, still had connected quality primarily with the presence of a regular and sufficient rainfall, with a particular type of soil, and with the adoption of certain methods of manufacture. The whole question was still doubtful, but a review of the present information on the matter would be useful, and was in cause of preparation. The address now given only dealt, and that shortly, with some of the factors which were more particularly under the planters' control. Dr. Mann was inclined to attribute the primary influence to the character of the soil. Tea was grown on the most divers soils, from poverty stricken sand up to rich part, and from extremely light to fairly clayey land, but through all, certain factors seemed to have a close relationship to quality. In the first place it seemed impossible to obtain high quality tea without a fairly extended root range. The latter might be limited by the extremely rich character of the surface, as in peat bheels, by the hard character of the sub-soil, as in some of the heavy clay flats of Cachar, or by the undrained character of the sub-soil. The first of these defects did not seem capable of removal, the third could be altered by drainage, which should be deep and narrow. He did not fancy that the drains three feet deep hitherto recommended, were deep enough in many cases. The second defect indicated, perhaps, the most difficult question in actual planting at present, but hitherto the best results had been obtained by deep trenching (eighteen inches to two feet) between alternate rows and filling the trenches with bheel soil, or even with jungle—and by growing and afterwards burying the *Bogamedeloa* plant (*Tephrosia Candida*) as described in his pamphlet on Green-manuring. In the second place it was necessary for the production of quality that the soil should be well-balanced so far as the material of plant food was concerned. If there was a large excess of nitrogenous plant food, normal growth did not take place, just as normal growth was also absent when the soil was excessively poor in any constituent. This was what happened on peat, what occurred when excessive dressings of bheel soil had been applied, or in fact, when manuring with large quantities of manure had been carried out, and it accounted for the general reputation manure possessed of "lowering" the quality of the tea. This could as the experiments at Heeleakha had shown, be got rid of by manuring with much smaller quantities of manure applied more frequently. Thus five maunds of oil-cake per acre applied annually to tea, had been shown to give better results in point of yield than fifteen maunds per acre added once in three years, and there then was no risk of loss of quality. The same principle applied to cattle manure, and in fact to all those manures whose chief function was the supply of nitrogenous food to the plant. As to direct manuring for quality, Dr. Mann stated that experiments hitherto had not been very successful, but he was still of opinion that phosphates, best applied as superphosphate, would show slight improvement in quality, if the experiments were conducted with great care.

In fact, quality was connected not so much with slow growth, as had so often been said, as with normal growth, and the object should be, therefore, while retaining the greatest possible vigour to arrange that neither the pruning nor the plucking nor the manuring should be such as to encourage a type of growth which could be considered as abnormal or rank. If such abnormal growth were obtained fine plucking would by no means, and lead to high quality.

After discussing the influence of Green-fly in improving the quality of tea, Dr. Mann passed on to consider the influence of methods of manufacture.

The chairman, having briefly thanked Dr. Mann for his very interesting address, mentioned that he trusted it might be found in the future possible for the members of the Surma Valley Branch to meet Dr. Mann at least annually. Dr. Mann, in reply, mentioned how very pleased he was to meet the planters of Cachar and Sylhet, and trusted that one and all would from now onwards not hesitate to communicate with his department—adding that he hoped to have the pleasure of meeting the advisory committee lately appointed at the Insectarium Kanny Koori.

Assam Branch.

At a meeting of the General Committee held on Friday, the 1st March 1907, the subject of the

CEYLON IMPORT DUTY

was referred to by the Chairman, who explained the present position and informed the meeting of a suggestion from two other Associations, *viz.*, Darjeeling and United Planters' Associations that a Circular be sent for the approval of all Tea Associations to be subsequently forwarded to the Indian Tea Association, so as to strengthen the hands of the Calcutta Association when bringing up the great injustice under which the Industry was labouring in consequence of the retention of the Import Duty in Ceylon. The Chairman then read the draft of the proposed Circular for the signature of all Associations which was unanimously approved.

Quality of Tea Boxes.

The following Circular issued by the Indian Tea Association is republished for information.

Indian Tea Association,
Royal Exchange Building,
Calcutta, 12th March, 1907.

No. 6.

CIRCULAR.

To

(All Members of the Association).

Dear Sirs,

I am directed by the General Committee of the Association to call attention to the necessity of great care being exercised in the selection of boxes of adequate strength for packing tea for export. Complaints have recently been made that the chests used for tea exported are frequently made of bad wood badly put together, so that, there is little chance of their standing even careful handling.

2. The Committee trust that members will appreciate the great importance of using strong chests, as otherwise it is hardly possible that the tea can arrive at its destination in proper condition. They would urge members to take the matter into consideration, so that in the coming season there may be no ground of complaint against the industry on account of either the quality of wood used or the construction of the chests.

Yours faithfully,

D. K. CUNNISON,
for Assistant Secretary.

Despite the high duty on tea large quantities are imported into Ispahan. The use of the beverage amongst Persians has in no way diminished by the increased duty. Various kinds of tea are imported into Yezd, namely Indian, China (Upper), green and black, and Java (Pekoe). All the Indian tea is sent to different parts of Persia but chiefly to Khorassan. None is consumed locally. The trade in this tea is now very limited, as it finds its way into Khorassan *via* the Batoum route aforesaid, which is supposed to be cheaper. Yezd traders in this tea lost on almost all their transactions during the year 1905-06. China (Upper) and Java teas are consumed locally, but the demand for the former is fast disappearing and is being replaced by Java tea. The yearly demand for the latter is estimated to be about 1,000 cases of 8 boxes of 10 lbs. net per box, or 16 boxes of 5 lbs. net per box.

The Fermentation of Tea.

In a monograph—Part II.—on this subject Dr. Harold H. Mann says:—

In my last report on the Fermentation of Tea, published in April 1906, I gave an account of the effect on the fermentation process in tea manufacture of changes of temperature, of light, of thickness of spreading, and of time of fermentation, considered however solely from the point of view of the pungency, colour, and body of the liquor from the tea made. During the season of 1906, I have had an opportunity of continuing the investigations there set out, under other conditions at the Tukvar Tea Estate, Darjeeling, and in addition have begun an inquiry into the effect on the *flavour* of the tea produced by modifications in manufacture.

PREVIOUS CONCLUSIONS.

The conclusions indicated a year ago, which formed the starting point of the investigations of 1906, may perhaps be summarised as follows:—

1. If tea fermentation be conducted between a temperature of 78° and 82° F. the process is complete (in the absence of microbes) in about five and a half hours at the most from the time of the commencement of rolling, and further fermentation has hardly any effect on the amount of pungency, body, or thickness of the liquor. No account was taken of flavour.

2. If the temperature is raised much beyond the limit indicated (about 78°—82° F.) the above statement no longer holds. A second action, independent of enzymes or other ferments, seems to come into play, which leads to the formation of a darker brown oxidation product of the tannin, completely insoluble in water, whose formation rapidly reduces the pungency, colour, and body of the liquor.

3. Fermentation proceeds somewhat less rapidly in a blue light than with white, red, or yellow lighting, but the ultimate result is the same in each case.

4. Unless leaf be spread more than 1½ inches thick, the effect of thickness of spreading is hardly noticeable.

5. To get the best results the following conditions are necessary—(1) a temperature of 82 to 84° F. or below, (2) a saturated atmosphere, (3) freedom from microbes.

LOW TEMPERATURE FERMENTATION.

In considering these results, it will be noticed that while I was able to indicate a superior limit of temperature beyond which the operation of fermentation should not be conducted, I was not able to do the same with regard to the lower limit. The question therefore at once arose whether it was possible, if not wise, to reduce the temperature below that normally employed by means of refrigeration. It is well known that such methods have been adopted in one or two places in Ceylon, but the success has not been sufficient, to say the least, to lead to an extension of their use. The result in my experiments agrees with this practical conclusion. When the temperature is reduced below 75° F. the length of the process becomes greatly increased and never reaches a termination in a time at all practicable in a tea estate. In the meantime, as I shall show later, the flavour is liable to decrease after about three hours of fermentation, more and more rapidly. So that we have at least two reasons why the fermentation of tea should not be conducted below 75° F. at least. The first is, that the increased time necessary to obtain the best colour and body of the liquor allows microbes to multiply in greater numbers. The second is, that after about three hours the flavour commences to be lost.

It is curious to note how these facts have been unwittingly recognized in the districts where temperatures are low (such as Darjeeling), by spreading the leaf much more thickly than is common in the warmer areas. This is also done towards the end of the season in Upper Assam. The thickness of the rolled leaf on the trays may reach two and a half to three inches, and in these cases the temperature in the interior of the fermenting mass is also considerably higher than outside, always at least from 2° to 3 degrees Fahrenheit.

As a result of my inquiries in connection with the effect of temperature on fermentation, I have been asked several times whether it is likely to be wise

to heat the fermenting house in the colder weather and in colder districts in order to obtain a temperature within the best limits of work, and I am strongly of opinion that this would well be worth while. It would require only a steam pipe connected with the boiler running partly round the fermenting house, to be used only when the temperature fell below 75° F., and then only sufficiently to keep the temperature on the fermenting beds to about 77° to 80° F. This method has, I understand, been adopted with success in some estates.

The figures, on the basis of which these remarks are made, are found in the following records of experiments:—

1. Leaf rolled half an hour, and then fermented at 73° F. (September 29th, 1906.)

	Amount of Fermentation.	Total Soluble matter.	Soluble tannin.
		Per cent.	Per cent.
After 4½ hours fermentation (including rolling)		.. 33·61	.. 12·48
" 6½ " " "		.. 32·91	.. 12·07
" 8½ " " "		.. 32·34	.. 11·97

It is evident here that considerable changes are still going on during the time between 6½ and 8½ hours fermentation.

2. Leaf rolled half an hour, and then fermented at 76° F. (October 11th, 1906.)

	Amount of Fermentation.	Total Soluble matter.	Soluble tannin.
		Per cent.	Per cent.
After 4½ hours fermentation (including rolling)		.. 39·17	.. 15·67
" 6 " " "		.. 38·50	.. 15·22
" 7½ " " "		.. 37·45	.. 14·76

The results of this test precisely confirm that of the previous one.

THE FLAVOUR OF TEA.

We may now turn to a consideration of the flavour of tea and its modification during manufacture. This flavour has always been considered as principally determined by the quantity of essential oil in the leaf. This quantity is exceedingly small, so small indeed that any measurement of the amount of the oil by weighing it directly is absolutely impossible. I have therefore adopted another method of estimating its quantity, comparatively, by determining the amount of oxygen required to completely oxidise it. The method of carrying this out (which has only a technical interest) is shown in the foot note.* It will be well understood that the figures obtained have only a comparative value, and that though it seems possible to say, that one sample contains twice as much volatile constituents (of which the chief is essential oil) as another, yet one cannot say that the one or the other contains a certain definite percentage of essential oil.

EXAMPLES OF THE METHOD.

I will now give the results of some actual determinations on a few valued samples of teas which have come into my hands during the past year, in order

* Ten grammes of air-dried tea or tea leaf (in which the moisture has been separately determined) are added to 500 cc. of water already boiling in a 3 litre flask. The whole is immediately connected to a condenser, and steam is blown through the flask (which is still heated) at such a rate as to give one litre distillate in about 2 hours. The distillate is collected in successive portions of 50 cc., (four) 100 cc (five) and 250 cc. To each of these portions 5 cc. of Sulphuric Acid (1 to 4) are added, and 10 cc. of N/50 Permanganate of Potash. Each lot is allowed to stand for 2 hours, and then 5 cc. N/25 Ferrous Sulphate solution are added. The excess of Ferrous Sulphate is then titrated with N/50 Permanganate of Potash. The amount of available oxygen is then calculated in each case, and generally reported separately for the first 250 cc. which come over and for the whole litre of distillate. The distillate is usually not or only very slightly acid to litmus.

to show the character of the results obtained;—

Garden.	Value of Tea.	Total Oxygen absorbed for complete oxidation.
	s. d.	Per cent.
Scottish Assam Tea Co., June 1906—		
Flowery Orange Pekoe ...	... 1 6	0·857
Broken Orange Pekoe ...	... 1 2	0·866
Orange Pekoe ..	... 1 0	0·358
Broken Pekoe ...	... 0 9½	0·861
Pekoe No. 1 ...	... 0 9	0·365
Oaks Tea Estate, Darjeeling—	RS. A. P.	
Broken Orange Pekoe ...	... 1 8 0	0·581
Pekoe ...	... 0 12 6	0·448
Nagadhoolie Tea Estate, Assam—		
Broken Orange Pekoe ...	... 0 15 0	0·876
Orange Pekoe ...	... 0 14 6	0·425
Pekoe ...	... 0 8 0	0·424
Pekoe Souchong ...	... 0 7 0	0·856
Pekoe Fannings ...	... 0 7 8	0·864.

It is at once seen how much higher the Darjeeling teas are than those obtained from Assam, and also how little the different portions of the assortment of the Assam teas differ from one another. While the Darjeeling teas sell almost alone for their flavour, in those from the Assam districts it is only one of several factors in determining the value, and unless the flavour reaches a certain intensity, it can hardly be called the predominant factor. How accurately the method will pick out a flavoury tea from one without marked flavour is shown by the following two samples made on the same garden and in the same factory in Darjeeling on the same day. The first was from a high elevation and had a very decided aroma; the second was from a lower elevation, and had no marked flavour:—

Tea	Total Oxygen absorbed for complete oxidation.
	Per cent.
1	0·498
2	0·895

In fact in every case which I have had the opportunity of testing, the method I am using has given results in accordance with a tea-broker's opinion of flavour. It, therefore, gave a chance to follow the development of flavour during the manufacture of tea, and ascertain what factors influenced its amount in the finished tea in a manner that ordinary tasting could never have done. The method, however, to a certain extent failed in dealing with fresh and withered leaf, in that in these cases the distillates were always slightly acid, and this would undoubtedly affect the amount of the result obtained. The figures for these are, however, so different from those for a later stage in the manufacture that conclusions can fairly be drawn from them. The method failed, too, in the case of overfired teas, as I shall show later. But in normal cases, there was no acidity in the distillate, or else it was very small and formed evidently a normal part of the volatile constituents.

WITHERING AND FLAVOUR.

In applying the method to the examination of leaf and tea, the first point was to ascertain how the development of flavour took place during a normally conducted manufacture. It quickly became evident that while a certain production of essential oil took place during withering, yet such production was small, the increase only amounting to about 15%. The following figures illustrate an actual experiment*:

* In all cases before determination the fresh, withered or fermented leaf-tray was carefully fired off on an Updraft sirocco, with a thermometer laid on the tray showing 180° to 200°F.

	Total oxygen absorbed for complete oxidation. Per cent.	Increase on fresh leaf. Per cent.
Fresh leaf ..	0.288	.. ..
Leaf withered 20½ hours ..	0.881	.. 15

ROLLING AND FLAVOUR.

So soon, however, as rolling begins, there is a very great development of essential oil. In every case I have examined, there has been this same great increase, as the following figures illustrate. The figures in each case represent the total oxygen required to completely destroy the essential oil, and are hence a measure of the quantity of the latter :

1. Leaf rolled for 45 minutes with pressure increasing throughout the rolling.
Temperature in rolling room=70° F. approximately.
Leaf as put on roller 0.382
Leaf after 45 minutes rolling 0.461
Increase.. 0.079 or 20.6%
2. Leaf rolled 40 minutes as above.
Leaf as put on roller 0.810
Leaf after 40 minutes rolling 0.889
Increase.. 0.079 or 25.5%
3. Leaf rolled 40 minutes as above.
Leaf as put on roller 0.340
Leaf after 40 minutes rolling 0.387
Increase.. 0.047 or 18.8%
4. Leaf rolled half an hour as above.
Leaf as put on roller 0.368
Leaf after ½ an hour rolling 0.400
Increase.. 0.037 or 10.2%

FERMENTATION AND FLAVOUR.

This increase in essential oil does not, however, stop when the leaf is taken from the roller. It continues during the fermentation but with gradually decreasing speed. Usually the whole of the development of flavour is complete at an early stage in the progress of the fermentation. After this it shows a tendency to decrease. This is illustrated in the following figures :—

1. Leaf rolled 40 minutes 0.389
Leaf fermented 1 hour, 45 minutes including the
rolling, at 80° F. 0.464
Increase ... 0.075 or 19.2%
2. Leaf rolled 40 minutes 0.387%
Leaf fermented 4 hours, including rolling at 68° F. ... 0.448%
Increase ... 0.056 or 14.5%
3. Leaf withered, as put on roller 0.850%
Leaf fermented 1½ hours, including rolling, at 75° F. ... 0.427%
Increase ... 0.077 or 22.0%

The maximum of essential oil was reached in practically every case before three hours of fermentation, including the rolling. After this the amount generally declined, as the following figures indicate :—

1. Leaf after 2¼ hours of fermentation (including ¼ hour
rolling)... .. 0.440 %
Leaf after 3¼ hours of fermentation (including ¼ hour
rolling)... .. 0.408%
Decrease after 2¼ hours ... 0.082 or 7.3%
- 2 Leaf after 5¼ hours of fermentation at 70° F. (including
¼ hour rolling) 0.416%
Leaf after 6¼ hours of fermentation (including ¼ hour
rolling)... .. 0.345%
Decrease after 5¼ hours ... 0.071 or 17.1%.

3. Leaf after $1\frac{1}{2}$ hours of fermentation (including $\frac{1}{2}$ hour rolling)...	...	...	...	...	0.427%
Leaf after $3\frac{1}{4}$ hours of fermentation (including $\frac{1}{2}$ hour rolling)...	...	...	...	...	0.402%
			Decrease after $1\frac{1}{2}$ hours	...	0.025 or 5.9%

In all these cases there was a marked decrease in the amount of volatile constituents, *i.e.*, in flavour after fermenting. In some cases this decline is extremely rapid. Thus, in the following case the amount declined in under five hours to considerably below the amount present at the termination of the rolling.—

4. Leaf before rolling	..	..	..	..	0.882
Leaf after 45 minutes rolling	..	..	..	..	0.486
Leaf after $4\frac{1}{2}$ hours fermentation (including rolling)	..	..	..	..	0.898

At other times the percentage found seems to remain remarkably constant after reaching a maximum, as in the following case:—

5. Leaf after $8\frac{1}{2}$ hours fermentation at 68° F..	..	..	..	..	0.430%
Leaf after $6\frac{1}{2}$ hours fermentation	..	..	..	..	0.484%
Leaf after $8\frac{1}{2}$ hours fermentation	..	..	..	..	0.484%

It seems fairly certain that after about 3 hours at temperatures about 70° F. or a little higher that no further development of essential oil takes place. It remains to account for the rapid decrease in some cases and for the considerable constancy of its amount in others. I believe this will be found in the action of microbes which ought not to be present, but are often so, more, of course, in some instances than in others.

EXPERIMENTS WITH ANTISEPTICS.

In two experiments I sought to exclude the action of microbes by the use of chloroform added to the fermenting leaf. This will prevent all growth of microbes, and though it is inadmissible for other reasons, yet it was possible to compare the amount of essential oil produced with and without the addition. The following were the results:—

1. Leaf rolled $\frac{1}{2}$ hour and fermented 2 hours with addition of chloroform	..	..	..	..	0.472%
Leaf rolled $\frac{1}{2}$ hour and fermented $2\frac{1}{4}$ hours, without addition of chloroform	..	..	..	..	0.431%
			Increase in Chloroform sample	..	0.042 or 9.7%
2. Leaf rolled $\frac{3}{4}$ hour and fermented 4 hours, with addition of chloroform	..	..	..	..	0.486%
Leaf rolled $\frac{3}{4}$ hour and fermented 4 hours without addition of chloroform	..	..	..	..	0.398%

In the last case there had been an exceedingly rapid disappearance of essential oil in the sample fermented without chloroform.

Though the addition of chloroform, and the resulting prevention of the growth of microbes seems to lead to a tea containing a higher amount of flavour, yet for other reasons, such addition is inadmissible as already stated, as it leads to a destruction of the enzyme responsible for the production of the colour in the liquor, and also to a rapid reduction in the soluble constituents of the liquor. The former point was made clear in my former pamphlet.—“The Ferment of the Tea Leaf, Part 2,” issued in 1903. The latter came out very clearly in one of the experiments conducted in 1906. Two samples of the same rolled leaf were taken and fermented for $2\frac{1}{4}$ hours, the one with addition of chloroform, the other without. After this time, the following results were obtained on the fired tea:—

	Total Soluble matter.	Tannin.
	Per cent.	Per cent.
Leaf fermented without chloroform	.. 37.91	.. 16.66
Leaf fermented with chloroform.	.. 86.50	.. 15.70

Such treatment, reducing as it does the thickness, body, and pungency of the liquid, cannot be used, but the above experiment would seem to indicate that the presence of microbes, or in other words the lack of perfectly clean conditions, is liable to have more serious results on the flavour than even on the remainder of the desirable qualities of the tea.

TEMPERATURE OF FERMENTATION AND FLAVOUR.

It is evident from the results so far given that the production of flavour is governed by quite other conditions than the production of pungency, and liquor. This is further illustrated by ascertaining the effect of temperature of fermentation. In the following cases, samples of the same leaf were fermented at different temperatures and the comparative flavour of the resultant tea ascertained :—

1. Leaf rolled, and fermented 1 hour at 70° F.	..	·0411%
Leaf rolled, and fermented 1 hour at 86° F.	..	·0406%
2. Leaf rolled, and fermented 8 hours at 70° F.	..	·0414%
Leaf rolled, and fermented 8 hours at 86° F.	..	·0411%

There is practically no difference in the results at the different temperatures up to 86° F. at any rate.

GENERAL RESULTS ON FLAVOUR AND FERMENTATION.

We thus come to the conclusion that during the fermenting process :—

- (1) the whole of the flavour is very rapidly developed after the cells of the leaf are broken ;
- (2) that the quantity does not materially increase after three hours fermentation ;
- (3) that there is generally a decline in the flavour after three hours fermentation, though occasionally the amount remains constant ;
- (4) that this decline may, it is possible, be connected with the action of microbes in the fermenting leaf ;
- (5) that the temperature, at any rate up to 86° F., has little influence on the formation of flavour during fermentation.

PRACTICAL CONCLUSIONS.

It will be seen that any effort to discover the best method of tea fermentation is met by a certain inconsistency between these conclusions and those previously formulated for the same process when only the pungency and character of the liquor were considered. In the latter case, the essentials were (1) a temperature of 75 to 84° F., (2) a saturated atmosphere, (3) freedom from microbes, (4) a time of four to five hours at least if the fermentation is to be complete. There is, however, one point in which the requisite for both the best flavour and the best liquor are the same. This is, freedom from microbe action, or in other words, extreme cleanliness. Furthermore, so far as my investigations have gone, the best temperature for the production of a good liquor is also as good as any other for the production of flavour. The only clashing occurs when one considers the time which the fermentation should be allowed to last. If the maximum of flavour is to be obtained, then the time must be less than three hours ; if the maximum thickness of liquor is to be produced, then the time (at the temperature given) should be more than four hours.

Is it possible that anything can be done to obtain the advantages of both ? I am afraid that beyond the avoidance of conditions which lead to a rapid decline of flavour after it has been produced, and which have been already specified, little is possible. It will be probably advisable to act in the plains so as to get the maximum of flavour, consistent with getting the liquor required ; in other words, to obtain by hard, but cool rolling a leaf in which fermentation is rapid, carefully regulating the temperature between 75° F. and 84° F., and retain the maximum flavour by ensuring the most completely aseptic conditions by cleanliness in every detail. In those districts where flavour is absolutely the primary consideration, the attempt should be made to obtain the best grade of liquor consistent with retaining the maximum of flavor. Hence here the regulation of the best fermenting temperature becomes even more important, for it is wished to push the production of colour on as fast as possible to avoid losing the flavour by long fermentation, and I think a great deal more is possible in this direction in the Darjeeling district than has been done there, or is possible in the plains.

To put this in a summarised form, my investigations indicate that if flavour is the primary consideration, the fermentation should be as short as possible, consistent with producing a respectable "liquor;" if "liquor" is the more important, the fermentation should be as long as possible (up to $4\frac{1}{2}$ hours at any rate) consistent with retaining the most flavour possible. In both cases absolute cleanliness and careful regulation of the temperature are essential to obtain the best result.

AERATION DURING FERMENTATION.

There is one matter, the importance of which in the fermentation I had realised till the present year, namely, the need for careful aeration of the room in which fermentation takes place. There is no doubt of the very large volume of air required by fermenting tea. I have made several experiments during the past year to find out exactly how much is required and the results have indicated as follows. I have calculated from the actual quantities used into pounds and cubic inches or feet.

1. After 50 minutes' rolling, and 10 minutes occupied in preparing the experiment, 1 lb. leaf (=42 lbs. dried tea) required 75 cubic inches of oxygen or 857 cubic inches of air for six hours fermentation at 68° F.

2. After 50 minutes' rolling and preparation, 1 lb. leaf required 87.5 cubic inches of oxygen or 416.7 cubic inches of air for $5\frac{1}{2}$ hours' fermentation at 79° F.

3. After one hour's roll, and some time afterwards for preparation, 1 lb. leaf required 74.6 cubic inches of oxygen or 855 cubic inches of air at 68° F. for 7 $\frac{1}{2}$ hours fermentation. In this case the fermentation was never quite complete.

If we calculate all these, to what we may regard as a normal fermenting temperature (79° F.) we find that

1. 1 lb. leaf (=42 lbs. dried tea) required 868 cubic inches of air=21 cubic feet.

2. 1 lb. leaf (=39 lbs. dried tea) required 416.7 cubic inches of air=24 cubic feet.

3. 1 lb. leaf (=43 lb. dried tea) required 861 cubic inches of air=21 cubic feet.

On the average of the three experiments $4\frac{1}{2}$ lbs. of fermenting leaf will exhaust the oxygen from one cubic foot of air.

This is enough to indicate the extreme importance of having the fermenting room of a factory well aerated. Normal fermentation cannot go on unless a large quantity of fresh air is present, and I believe that the fermenting rooms of the future will contain means of blowing moist air into the room. It has, usually, been considered unwise in the past to have draughts in the fermenting rooms, but this has been largely, if not entirely, due to the fact that a draught usually means drying of the surface of the leaf. What I now suggest as advisable, if the best results are to be attained, is the blowing in the *saturated air* (by blowing the in-coming air over wet cloth or *kuskus*) in such a way as to ensure the air actually in contact with the tea being continually renewed.

FIRING.

We may now pass on from the fermenting operation itself to a consideration of what may happen when the fermented leaf is placed on the firing machines. Little attention has been paid in the past to the investigation of what actually takes place in the firing process, and information to hand is chiefly concerned with the relative merits of different machines.

In my last report, however, I showed the importance of leaf not taking longer to become at least crisp than could be avoided. This was due to the fact that anything resembling stewing in any way caused rapid reduction of the soluble matter and soluble tannin in the tea. The experiment quoted was as follows:—

	Total soluble matter. Per cent.	Soluble tannin. Per cent.
1. Leaf as fermented, dried quickly at 185° F.	87.28 . .	15.89 . .
2. Leaf as in 1 kept for 2 hours at 150° to 200° F., and then dried quickly	85.46 . .	14.21 . .

In this case there was a loss of nearly 5% on the total soluble matter and of nearly 8% on the tannin.

This result has been confirmed in the past year. Here three lots of fermented leaf were taken, one was dried off quickly and carefully, the second was kept at 190° F. for half an hour, drying being prevented, and then dried off quickly, while the third remained one hour and 10 minutes at 190° F. similarly. The results for total soluble matter and tannin are shown as follows:—

	Total soluble matter.	Soluble tannin.
	Per cent.	Per cent.
1. Dried off at once after fermentation	... 33·18	... 18·26
2. Half an hour at 190° F. and then dried off	... 31·25	... 11·75
3. 1½ hours at 190° F. and then dried off	... 30·88	... 11·05

The rapid reduction in the amount of both these constituents, vital as they are to a good pungent liquoring tea, cannot be mistaken.

FIRING AND FLAVOUR.

The same is true with regard to the flavour. The reduction during the stewing operation is extremely rapid, as the following figures indicate:—

Leaf dried off at once	... ..	... 0418%
Leaf heated to 190° F. for ½ an hour and then dried off	... ..	... 0878%
Leaf heated to 190° F. for 1½ hours and then dried off	... ..	... 0373%
Total loss of in 1½ hours	... ..	... 0045 or nearly

11 per cent. of the total.

Slow firing, therefore, during the first part of the process means loss of pungency, body, and flavour in the tea produced. The old practice of allowing partly dried, and still moist tea to wait in heaps before being put on a second machine is in the highest degree injurious and affects not only the briskness and pungency, but also the flavour.

There have been two ways of avoiding this. The one is by drying at a very high temperature, the other by the use of a larger amount of drying air either by putting a heavier blast on a machine, or by using more machines.

The use of a higher temperature has been often adopted, and perhaps may be advisable when the flavour counts for nothing, and the pungency and liquor are only to be considered. But so soon as the actual temperature on the tray on which the leaf is drying exceeds 212° F. (the boiling point of water), there is a rapid loss of such flavour as is present in the tea. In the following example, the fermented leaf was dried for half an hour at the temperatures specified, the thermometer being actually on the tray with the leaf.

1. Fermented leaf fired at 190° F. to 210° F.	... ..	... 0456%
Fermented leaf fired at 239° F.	... ..	... 0427%
Loss of flavour by higher firing	... ..	... 0029 or 6·3%

of the total.

If flavour is to be fully retained, it is evident therefore that a temperature above boiling point of water in the leaf itself is inadmissible.

Even a temperature considerably below the boiling point of water, long continued, even in nearly dry tea, is equally fatal to the best results. A Darjeeling pekoe, made some time before, and hence almost dry, was kept at 200° F. for half an hour and an hour respectively, and great loss of essential oil occurred in both cases. In this case the following figures were obtained:—

Tea, without further heating	.. ..	... 0525%
Tea, after ½ hour at 200° F.	.. ..	... 0416%
Tea, after 1 hour at 200° F.	.. ..	... 0869%

The conclusion must be

(1) That firing above 212° F., means loss of flavour.

(2) That long continued firing even below that temperature, and even with almost dry tea, also means loss of flavour.

These conclusions restrict us to those methods of increasing the speed of firing by putting a heavier blast on the machine or by using more machines. Which of these is the better, I have not yet ascertained, but one or the other it must be if a high speed of firing is to be obtained without increase of temperature.

CONDITIONS ON A "PARAGON" MACHINE.

These results led us to try and ascertain how the temperature conditions varied on the different trays of an automatic dryer. A "Paragon," being one of the latest types of such machines, was chosen for the experiments, and by the kindness of Mr. C. Bald, I was able to drill holes in the side opposite the various trays of the dryer in order to accommodate my thermometers. The machine was running normally, the leaf taking half an hour to pass through the machine, and coming out about 75 to 85% (12 to 14 annas) fired. The temperature of the inlet air was 255° F. to 265° F. The fan was set at two holes from the end marked "open," and the belt was on the lowest speed pulley. The following were the temperatures in different parts of the machine.

Temperature.	Lowest.	Highest.
Above top tray ...	99° F.	140° F.
Above fourth tray from top ...	180° F.	205° F.
Above fourth tray from bottom ...	219° F.	228° F.
Above second tray from bottom ...	236° F.	...
Below bottom tray ...	236° F.	247° F.

It is evident, therefore, that in a Paragon machine working under normal conditions, only the two bottom trays in any sense represent the temperature as read on the inlet thermometer. Above this the temperature rapidly declines, and the conditions are present which I have indicated, as those which should be avoided in drying tea; in other words, the tea is being stewed.

To find out whether this was essential to the machine, or whether it was capable of being avoided, I tried various modifications of the arrangement to see if the high temperature and hence rapid firing in the early part of the process which seem desirable could be attained.

The following are the temperature readings obtained :—

1. Experiments in varying the fan, the belt remaining on the slowest pulley :—

	Top tray.	Bottom try.	Inlet.
Fully open ...	99½° F.	236° F.	258° F.
One hole shut ...	99° F.	236° F.	255° F.
Two holes shut ...	99° F.	236° F.	255° F.
Four holes shut ...	102° F.	245° F.	266° F.
Last hole ...	104° F.	246° F.	265° F.

2. Experiments on the effect of altering the belt, the fan remaining as usual with two holes shut :

	Top tray.	Bottom try.	Inlet.	Time to go through the machine. Minutes.
Slowest belt ...	99° F.	236° F.	255° F.	30
Second slowest belt ...	102° F.	244° F.	255° F.	22
Third slowest belt ...	110° F.	247° F.	255° F.	18
Second fastest belt... ..	112° F.	247° F.	257° F.	14
Fastest belt ...	112° F.	247° F.	256° F.	11

The third slowest came out about 75% (12 annas) fired, and the fastest at 50 per cent (8 annas) fired.

IDEAL CONDITIONS OF FIRING.

It is evident that none of these conditions give even a remote approach to the ideal conditions. In order to get even a moderate temperature on the top tray, the temperature of the inlet air has to be so high, that the lower trays have too high a temperature. This latter will not be, however, anything like so high in the leaf itself as this appears to indicate; the thermometer being placed just above the leaf but not in it. The faster the belt the better the conditions seem to be, but its use involves a second machine to follow on with the half dried tea immediately, and hence a considerable increase in firing machinery for the same size factory. It would seem that if there were a way

of supplying the two or three top trays with a separate current of hot air direct from the furnace, as well as the one at present used, it might be possible to improve the "Paragon" machine materially from my point of view. The following points seem to be essential to the ideal firing process :—

- (1) a rapid rising of the temperature of the fresh leaf, in a current of air sufficiently strong to carry off the moist saturated air and so prevent stewing ;
- (2) a rapid firing throughout ;
- (3) the leaf itself : never to be exposed to a temperature greater than 180° to 200° F. either when wet or after becoming more or less dry. To make sure of this point, it will be necessary for a factory to be supplied with thermometers for taking the temperature actually on the trays, as the thermometer of a machine, placed as it is at the hot air inlet, gives in many cases absolutely no idea of the temperature at which firing takes place.

CONCLUSION.

I have, in conclusion, only to thank those who have assisted me in many ways during the carrying out of the investigations here recorded in 1906. To the late Mr. J. D. Gwilt, who made all the arrangements for my work at Tukvar, to Mr. P. Moller, the acting Manager, and to all connected with that estate, my very best thanks are due.

COCOA.

MANURIAL EXPERIMENTS WITH CACAO IN DOMINICA.

In the West Indian Bulletin a summary is given of the fertilizer experiments carried on at the Dominica Botanic Station since 1900. In addition, the results secured on experimental plats in 7 country districts are noted.

At the botanic station, the use of basic phosphate and potash without nitrogenous manure has not proved beneficial, but when dried blood has been added there has been a striking increase in the yield per acre. A complete fertilizer, therefore, is recommended. Even the application of dried blood alone has shown very beneficial results, there being a gain of 308 lbs. of wet cacao, or 4.4 lbs. per tree over the no-manure plat.

The most interesting results have been obtained on the plat mulched with grass and leaves, the sweepings of the lanes at the botanic station. At first the yields on this plat while in excess of those on the no-manure plat were considerably less than on the fertilized plats. During the past three years, however, the yields from this plat have greatly exceeded those of any other plat in the experiment. In 1905 the yield was 38.91 lbs. of wet cacao per tree against 22 lbs. from the no-manure plat, or a gain of 77 per cent. It is believed the plat has been permanently improved by the application of the mulch, as the soil is more moist and dark in colour and the trees have a better surface root development. The experiment is believed to show that a large increase in the yield of cacao can be obtained without the use of artificial manures, and as mulching material is abundant, it appears wasteful and unnecessary to purchase other manures. These results are believed to answer the question as to the best way to improve cacao cultivation in Dominica.

The results secured on the various fertilizer plats in the country districts indicate that phosphatic manures are quite generally beneficial.

In 1906, San Domingo Cacao, as usual, found the largest market in Germany, shipments to that country aggregating 9,602,621 lbs. valued at 688,100 dol. an increase in quantity over consignments during the first half of 1905 of 3,118,635 lbs. There was also an increase in the quantity sent to the United States from 828,119 lbs. valued at 850,661 dol to 6,125,841 lbs. valued at 895,862 dol. while the consignments to France decreased from 6,528,169 lbs. valued at 568,188 dol. to 2,475,988 lbs. valued at 179,802 dol.

THE ANTI-TEA DUTY LEAGUE.

Memorial regarding the British Tea Duty.

TO THE RT. HON. H. H. ASQUITH, K.C., M.P.,

Chancellor of the Exchequer.

SIR,—We, the members of, and sympathisers with, the Anti-Tea-Duty League, desire to place before you the following facts relative to the heavy tax still being levied on Tea :—

We have taken several opportunities during the past two years, of making public our arguments for the removal of the very onerous burdens which your predecessors placed upon our shoulders, and we cordially welcome the sympathetic tone in which you recognised our position in your Budget Speech last year, but we beg to call your particular attention to the result which has followed the partial relief you were able to give us in the removal of one-half of the War Duty.

The consumption of Tea in this country prior to 1906 reached its maximum of 6·16 lbs. per capita in 1901, but the numerous changes in the rate of the Tea Duty of late years have somewhat vitiated the value of annual averages and we prefer to cite triennial averages, which, for the fifteen years ending in 1905, are as follows :—

1891-3	...	...	...	5·89 lbs. per capita.
1894-6	...	...	...	5·64 " "
1897-9	...	...	...	5·86 " "
1900-2	...	...	...	6·10 " "
1903-5	...	...	...	6·00 " "

You will note that our Industry was able to reckon for a long period of years, not only upon that accretion of trade due to the natural increase in population, but also upon a regular increase in the per capita consumption which reached its maximum in 1900/2. This was stopped by the War Tax of 1901, and the position was intensified by the further taxation, making a total of 8d. per lb. in 1904, with the result that both sources of increased trade were cut off, and official returns show that the loss of market in this country for the four years 1902-05 has amounted to no less than 44 millions of pounds.

With the remission of the "Peace Tax," which your predecessor was able to grant, and the half of the War Tax which you found yourself in a position to remit, the consumption has shown some signs of elasticity again, and the returns for the calendar year just closed, show a total consumption of 270,000,000 lbs., being an increase over 1905 of 11,000,000 lbs., thus bringing the per capita consumption for the year to 6·18 lbs.

We desire to call your attention to the important change in the habits of the people of this country which is evidenced by the consistent decrease in the annual alcoholic "drink bill," coupled with the increase in that of all temperance drinks, of which Tea is the most important. That this should meet with even any temporary check, must be a matter of serious concern to those who have the welfare of the country at heart.

As between one temperance beverage and another, the taxation of Tea, which is, of course, the principal non-alcoholic drink of this country, has been reduced by one-sixth since you stated its incidence to be 90 per cent. on the average value, and it may therefore be taken now at about 70 to 75 per cent., as against Sugar at 80 per cent., Coffee at 25 per cent., and Cocoa at 18 per cent. Such a difference, is, we submit, inequitable and unduly burdens an article which forms such a large proportion of the daily food supply of the country.

That large section of the population, who, living from hand to mouth, make their purchases in the smallest retail quantities, did not, it is feared, fully benefit by the last reduction of one penny per lb. in the duty, and owing to a recent rise in the price of common tea, it is probable that the burden will be still more heavily felt by them, unless you find yourself in a position to alleviate it by a further reduction in duty.

We may also point out to you that Tea represents about one-eighteenth of the total exports of all produce (excluding specie) from India and nearly two-thirds of those from Ceylon, and is the sole source of livelihood to a labouring population of upwards of 2,000,000 of the poorest of the natives of India and Ceylon.

In conclusion, therefore, we have to ask your earnest and most favourable consideration of the case that we now have the honour of placing before you, and we trust that the arguments which we have brought to your notice, may warrant your affording a substantial measure of relief to Tea Producers and Consumers in your next Budget.

We have the honour to be,

Sir,

Your most obedient servants,

J. D. REES, C.I.E., M.P.,

Vice-President, Anti-Tea-Duty League.

F. A. ROBERTS,

Chairman, Executive Committee.

The Signatures have also been appended of—

The Earl of Glasgow, G.C.M.G., D.L., LL D.

The Lord Kingsale.

The Lord Elphinstone.

The Rt. Hon. Sir West Ridgeway, P.C., G.C.M.G., K.C.B., K.C.S.I., etc.

Col. Sir William Bisset, K.C.I.E.

Sir E. T. Candy, C.S.I.

Surgeon General Sir A. C. C. de Renzy, K.C.B.

Sir George Pilkington.

Sir Cecil Clementi Smith, G.C.M.G.

Arthur Bryans.

Norman H. Grieve.

Sinclair MacLeay.

A. G. Stanton

G. A. Talbot.

W. J. Thompson.

Members of the Council,

and of 70 Members of Parliament.

RUBBER.

The *British North Borneo Herald* remarks.—Tapping on sixty (Pará) trees was commenced at the Tenom Rubber Estate on the 1st of July, 1906, and has been continued on alternate days to date (27-2-07) except on such occasions as days when rain fell or the coolie in charge was ill: the yield for these eight months has averaged 15 ounces (15/100 of an oz) per tree per tapping, or 1½ pound of dry rubber per tree per annum for trees 5½/6 years old, and with an average girth of 23 inches: the trees are now yielding more latex and of a greater density than when we commenced and the only thing which seems to diminish the yield is any cessation of tapping after which the trees seem to take some days to get into their stride again: none of the rubber has yet been marketed as the parcel would be too small to be of value.

The *British North Borneo Herald* has been informed that the North Borneo Trading Company are opening another Rubber Estate of 500 acres on one of the rivers in Sandakan Bay.

In Ceylon Mr. J. C. Willis and Mr. M. Kelway Bamber have been experimenting to test the possibility of sending home undried block rubber preserved with the aid of creosote. So far the experiments have led to no useful conclusion, but they have encouraged further investigation.

The Central Agricultural Committee, Madras, has issued a bulletin under the title of "Memorandum on the preparation, packing and transmission of specimens of plants, insects, &c., for expert examination."

COFFEE.

Coffee Experiments.

The Madras Agri-Horticultural Society has published the following notes:—

The following correspondence is in reference to a sample of coffee fruit sent to Prof. Wyndham Dunstan, Director of the Imperial Institute, London, for comparative analysis by the Honorary Secretary.

1. Letter from the Agri-Horticultural Society, No. 785, dated 11th August, 1904.

I am sending you by this post a sample of coffee grown on one of the oldest estates in Mysore, *viz.*, Arabidecool, in the Kadur District, in the hope that you will be able to have it analysed. The deterioration of the quality of coffee grown in Mysore and South India according to reports received from London Agents in recent years has been very marked, and the planters in many cases incur considerable loss in consequence.

They are quite unable to account for this deterioration and so far they have received little scientific advice. Dr. Lehmann, the Agricultural Chemist to the Government of Mysore, last year made some experiments, but so far, no definite results have been obtained. The sample I send you is particularly interesting, because it is from an estate which some forty years ago obtained the best prices in the market. The last crop, however, from which the sample sent is taken, obtained nearly the worst, *viz.*, an all-round average of 52s. per cwt. The estate in question is to be highly manured within the next few weeks with a complete manure, with a view to improving both the yield and the quality, and if, as is hoped, its produce obtains very much better prices in the London market, the analysis between this year's crop—sample of which is now sent—and next year's crop, will produce a most interesting and instructive comparison. Should you be able to get the sample analysed, I will arrange to have another sent a year or so hence, then the effect of the manure becomes apparent.

2. Letter from the Director, Imperial Institute, London, No. 695-22, dated 5th November, 1905

In your letter No. 785 of the 11th August 1904, forwarding a sample of coffee grown on the Arabidecool Estate in the Kadur District of Mysore, you stated the soil of the estate was shortly to be thoroughly manured and that a fresh sample of coffee of the next season's growth would be sent to the Imperial Institute for comparison with the former specimen.

I should be glad to be informed what success has attended the experiments that have been made and to receive for examination a sample of this year's crop.

3. Letter from the Agri-Horticultural Society No. 1872, dated 6th December, 1905.

I beg to acknowledge your letter of the 8th ultimo regarding a sample of coffee grown on the Arabidecool Estate in the Kadur District of Mysore and sent to you from this office on the 11th August 1904.

The soil of this estate was duly manured in October-November, 1904, with a mixture of basic slag, saltpetre and poonac and with remarkably good effect on the appearance of the estate and the yield. The crop now about to be gathered promises to be a very good one and I shall be glad to send you a sample for examination in about six weeks' time.

A comparison between these two samples will provide coffee planters with most interesting data.

Letter from the Director, Imperial Institute, London, No. 428-80, dated 31st October 1906.

I beg to forward a report on the results of the examination of the two samples of coffee from the Arabidecool Estate in Mysore, which are referred to in your letters, No. 785, dated the 6th August 1904, and No. 1872, dated the 6th December, 1905.

The comparative examination of the two samples has shown that the manual treatment has produced a slight increase in the size and weight of the beans and in the amount of alkaloid present.

It will, however, be necessary to continue experiments and obtain further data before any definite conclusions can be drawn.

REPORT ON COFFEE FROM ARABIDECOOLO ESTATE, KADUR DISTRICT, MYSORE.

A sample of coffee beans was received at the Imperial Institute in 1904, from the Secretary of the Agri-Horticultural Society, Teynampett, Madras, with a letter dated the 11th August, 1904. It was stated that the coffee was grown on the Arabidecool Estate, Kadur District, Mysore, an estate which 40 years ago produced coffee that obtained the highest prices, whereas the present prices are nearly the lowest. A second sample from the same estate, grown during the season 1905-06, was received in March, 1906, and is referred to in a second letter dated the 6th December, 1905. In the interval, the soil of the estate had been manured with a mixture of basic slag, saltpetre and "poonac" with a result that a remarkably good effect was noticed both in appearance of the plants and in the yield of coffee. It was desired, therefore, to have a comparative examination of the two samples of coffee with the object of ascertaining the effect of the manurial treatment.

The two samples, which weighed 248 and 450 grains respectively, were similar in appearance. The second sample, grown after the manuring, was a little darker in colour and the beans were rather more regular in size.

The two samples were submitted to chemical examination, and the following table shows their composition :

	Beans grown in 1904 previous to the manuring. Per cent.	Beans grown in 1905-06 subsequent to the manuring. Per cent.
Moisture	9.17	9.28
Total alkaloid, principally caffeine..	1.22	1.46
Albuminoids	10.46	9.87
	Calculated from albu- minoid nitrogen 1.68	Calculated from albu- minoid nitrogen 1.58
Other nitrogenous substances ..	1.23	0.81
Fat	11.36	11.53
Fibre	21.60	21.80
Ash	3.86	3.72
Other non-nitrogenous substances.	41.05	41.53

The specific gravity of the beans of the first samples, *viz.*, that grown before the manuring, was found to be 1.22, and of the second sample, *viz.*, that grown after the manuring, 1.25. The average weight of the beans composing the first sample was 0.156 gram and of the second sample 0.180 gram. The number of beans required to fill a 50cc. cylinder was 222 in the case of the first sample and 200 in the case of the second sample, showing that the average size of the beans had increased.

COMMERCIAL VALUATION.

Messrs. T. H. Allen & Co., through whom the second sample of coffee was received, have furnished the following particulars regarding its commercial valuation. The market description of the coffee was "Low middling grayish-green, rough, mixed, some foxy and faded." It was valued at 56s. per hundred-weight in bond and it realised 55s. The average price obtained for the previous year's crop was stated to be 52s., so that a slight improvement in the value has occurred. This, however, may be partially due to market fluctuations.

Grading of Brazilian Coffee.

The Associacao Commercial of Rio de Janeiro has received from the Associacao Commercial of Santos the following official communication:—We have the honour to inform you that the General Meeting of this Association on the 28rd inst. recognised for the official grading of coffee in the Santos market the types used by the New York Coffee Exchange from Nos. 1 to 9 with the specifications contained in the report of which we will forward a printed copy as adopted by the said meeting. We are, etc., *Francisco M. Inglez de Souza*, President, *Antonio de Freitas Guimaraes*, Secretary."

The following is the report :—

"We, the undersigned members of the Committee appointed by the General meeting of the Associação Commercial of Santos, held on the 17th of December 1906, to regulate the grading of coffee in the Santos market, have the honour, in compliance with our mission, to propose the official adoption of types. Nos. 1 to 9 on the basis of the New York Coffee Exchange since they are recognized as the most rational basis and the least liable to cause controversy.

"Mathematical methods in classification are impossible and the Committee is of the opinion that owing to the numerous varieties of the commodity, it is difficult, if not impossible, for the present at least to find a more perfect system of grading.

"The creation of National types could only be based on the same conclusions as the American types which are already recognised as the best for the classification of the different types, so that our work will consist in simply copying what already exist with the simple alteration of a label.

"On this account and because the organisation of such a service here would be both slow and expensive, as a suitable staff would be difficult to find, and also because the types of the New York Coffee Exchange are already becoming familiar here and are employed in the European markets where a great number of transactions are based on them, the Committee suggested the adoption of the original New York types.

"The Committee takes the opportunity of presenting in brief the ordinary rules employed for the American classification together with a table showing the equivalents of inferior grades and their commonest defects.

Type.	Quantity of black beans per $\frac{1}{2}$ pound tins.	Extra Margin allowed.
1	0	
2	6	
3	18	About 6 imperfect beans (green, broken, etc.)
4	29/30	" 25 " " " " "
5	57/58	" 40 " " " " "
6	115/118	" 50 " " " " "
7	200	" 70 " " " " "
8	450	} In these low qualities, the classification of coffee is influenced by its appearance.
9	850	

NEAREST EQUIVALENTS OF IMPERFECT BEANS.

8 shells (conchas)	...	...	equal to	1 black bean.
5 green beans	...	...	"	1 " "
5 broken beans	...	...	"	1 " "
2 scorched beans	...	...	"	1 " "
5 soft or badly threshed beans	...	...	"	1 " "
1 large stone	...	...	"	2-3 " "
1 medium size stone	...	...	"	1 " "
2-3 small stones	...	...	"	1 " "
1 large twig	...	...	"	2-3 " "
1 medium size twig	...	...	"	1 " "
2-3 small twigs	...	...	"	1 " "
1 large husk	...	...	"	1 " "
2-3 small husks	...	...	"	1 " "
1 pod (coco)...	...	...	"	1 " "
2 sailors (marinheiros)	...	...	2	2 " "

TEA.

A Termite Pest of the Tea Plant.

(By E. ERNEST GREEN)

A species of 'White Ant' (*Catotermes militaris*, Desneaux) that attacks and hollows out the stems of living tea bushes has been known for some years. It occurs sporadically in most of the tea districts, independently of elevation. Its life history has hitherto been a complete mystery, no definite nest or abnormally developed breeding females having been observed. Recent investigations in the Lindula district have now enabled me to solve the puzzle. On the estate in question the pest has been known for some years, but no attempt to eradicate it was made until last year. It has consequently spread considerably. In some instances whole patches of tea trees have had to be eradicated. Usually, some two or three trees only are affected at one spot. Examination of a number of affected trees showed that the main stem and roots, together with the larger branches, are completely hollowed out, the stem being frequently merely a hollow shell. In spite of this extensive damage the bushes continue to flush well and show no external signs of injury. Only

THE HEARTWOOD IS DEVoured,

the sap wood remaining intact and carrying on the functions of the plant. The devoured tissues are replaced by earthy matter into which adventitious roots are thrown out—apparently from the inner walls—and evidently obtain much nourishment from the earthy matter. In digging out the infested trees no signs of extension of the galleries were observed, and no insects were found in the excavated soil. It appears from this that each colony is self-contained in the individual tree, and extends its depredations only when that tree is fully occupied. On splitting open the infested stems and branches, insects in all stages could be found, but no eggs. There were larvæ—quite small up to fully grown, full grown workers and soldiers and a few wingless adults of the same size as the workers, but distinguished by their uniform reddish colour and more chitinous integument. The larvæ are translucent white; the workers creamy white with darker cloudy markings on the abdomen; the soldiers with large reddish heads and prominent falcate mandibles. No eggs were observed; and nothing resembling a differentiated queen. Nor were there any indications of special brood cells or honey-combed nest. On subsequently dissecting some of the adult insects, their bodies were found to contain well-developed ova—of a very much larger size than those deposited by the specialized queens of other species. I gather, from these observations, that the

LIFE HISTORY OF THIS SPECIES

is very distinct from that of the common mound-building termite; that no specialized breeding queens are produced; but that the ordinary adults (which are never very numerous in one colony) are apterous and remain in the nest in which they are raised, and carry on the breed *in situ*. It is possible that living larvæ (instead of eggs) may be produced, but the evidence on this point is inconclusive. Each colony is therefore self-contained, and the removal and destruction of the tree should destroy the complete colony. The presence of the pest can seldom be recognized until the bush has been pruned, when sections of the galleries are exposed. In recently attacked bushes, only collar pruning can disclose the infection, as the insects apparently effect their entrance through the roots, working up first into the stem and later into the branches. Seeing that infected trees are still able to carry on their functions and to yield (apparently) as much crop as sound trees, it seems a pity to have to eradicate them if some

MEANS COULD BE EMPLOYED TO DESTROY

the insects *in situ* and so to prevent the extension of the injury to the surrounding trees. With this view I experimented with the patent 'Ant Exterminator' recently received from South Africa. This machine pumps a deadly gas (generated from sulphur and arsenic) through the galleries, and has been found most effective in the destruction of the ordinary mound-building ter-

mites. The nozzle of the machine was inserted first into the exposed galleries in one of the branches, and afterwards into a hole drilled through the stem into the main cavity. But the ventilation was insufficient, owing to the blocking of the cavities with earthy matter, and it was found impossible to force the fumes through the system of galleries. Other plants were collar pruned, and small quantities of vaporite placed in the cavity, which was then plugged with clay. The results of this latter experiment will not be available for some weeks.

The Shot Hole Borer.

In a former number of the *Agricultural Society Magazine* (Nov. 1906, p. 396) reference was made to a

NOVEL METHOD OF DESTROYING THE SHOT-HOLE BORER, *in situ*, by scorching the bushes immediately after pruning. The inventor of this method is Mr. C. W. R. Tyler, of Sanquhar Estate, in the Gaupola districts. I have now had an opportunity of seeing the work in progress, and am very favourably impressed with the results. The following notes were made on the spot:—

Gangs of women and children are supplied with torches made of dried coconut leaves. They pass the flaming torches round each bush, beneath the branches, holding them there long enough for the heat to penetrate the wood. On splitting open the branches, the insects—both young and adult—are found to be quite dead. I was able to satisfy myself of this result in the smaller ('pencil') branches. The older branches, though previously badly infested, were now deserted by the insects, so it was impossible to determine here whether the treatment would be equally effective in these thicker branches. I was shown a field that had been treated in this way when pruned in August of last year. The treatment was said to have been applied very severely, and

NOT A SINGLE SURVIVING INSECT

could then be found. A good many of the smaller branches had been killed, but fresh healthy shoots were in every case being thrown up from the lower parts of the bushes, promising a rapid recovery. This system seems to me to be preferable to collar pruning as—while ridding the plant of the pest—it affords a more rapid recovery. It should be understood that, to be of permanent value, the treatment must be carried out systematically over the whole of the affected area. Otherwise re-infection from surrounding fields will occur sooner or later. In the meantime, it has the advantage of bringing the plant into a condition that enables it more successfully to resist the attacks of the borer. That nature can and does repair the injury under favourable conditions was abundantly evident on this estate. On splitting open the more healthy free growing branches, the entrance holes were repeatedly found to be plugged by an ingrowth from the cambial tissues.

THE COST OF THE TREATMENT

is largely influenced by the cost of the torches. On this estate the dried coconut fronds had to be bought in Kandy (some 18 miles distant) and transported by rail and cart to the estate. Each torch costs on the estate, approximately two cents, and is exhausted after the treatment of eight bushes. A cooly can satisfactorily treat 250 bushes for his day's name. This works out at Rs.13.55 per acre; but Mr. Tyler informs me that the actual cost is nearer Rs.11. Experiments were tried with artificial torches composed of coconut fibre, kitul fibre, and old sacking—tied on sticks. These substances were steeped in kerosene oil and liquid fuel. The kitul fibre proved to be slightly the better medium, but owing to the difficulty of obtaining it in sufficient quantity and at a cheap cost, it must give place to coconut fibre for practicability. Our experiments showed that this fibre—when properly tried will form a really useful and economical torch. The fibre should be tied in a tight pad—without loose ends. Of the two oils, the heavier and cheaper (liquid fuel) was found to be the more satisfactory. In application one podian accompanies some five or six torch bearers, with a tin of oil and a small scoop with which he replenishes the torches as the oil is exhausted.—*Agricultural Society Magazine* (Ceylon) for March.

The Planters' Chronicle.

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JUNE 1907.

[PRICE AS. 2.]

THE U. P. A. S. I.

(INCORPORATED.)

To Popularise Coffee.

All that can at present be added to previous statements on this subject is, that Mr. John C. Sanderson has in no way relaxed his efforts to get the subject thoroughly discussed, and that some progress appears likely to be made. The extent of that progress will be dependent, in great measure, on the course adopted by producers in Brazil and other countries, and steps are being taken to ascertain what they can, and will, do. The London Chamber of Commerce continues to devote attention to the subject, but full reports of proceedings are not available for publication at present.

The Annual Meeting, 1907.

It is practically settled that the next Annual Meeting will be opened at Bangalore on Monday, the 19th August 1907, and District Planting Associations have been requested to submit memoranda of any special subjects that they may wish entered on the agenda paper.

The Indian Tea Cess.

A communication from the Indian Tea Cess Committee reads as follows :—

"It is within your knowledge that under the provisions of Act IX. of 1903, the five years period for which the Indian Tea Cess was levied will come to an end on the 31st March 1908

"You will no doubt recollect that at the last half-yearly meeting of the Cess Committee the question of the continuance of the Cess was raised. It has subsequently formed the subject of correspondence between the Executive Committee and the Indian Tea Association (London). The London Committee favoured the extension of the Act, and at their meeting on the 11th March they unanimously adopted the following resolution :—

'That the Cess Committee should be asked to make an application, under section 9 of the Act, to the Government of India for a continuance of the Tea Cess.'

"The General Committee of the Association in Calcutta have also been referred to. They are likewise in favour of continuance and they are now ascertaining the views of the members of the Association. It seems to the Executive Committee that opinions are pretty well unanimous."

A reference having been made to the Council—and more particularly to these members who represent Tea interests—it has been found that there is similar unanimity in the South. The vote of the U. P. A. S. I. has, therefore, been recorded in favour of a continuance of the Cess and the necessary extension of the Act. It will be observed that no period of time has been mentioned in connection with this extension. This point has been left for settlement by the Government, who will no doubt take the opinion of the Indian Tea Association.

Flavour of Tea.

"NILGIRI PLANTER" addressed the following letter to the Editor:—

"As you have obtained permission from the Indian Tea Planters' Association to publish in your columns, from time to time, the results of Dr. Mann's valuable investigation into the manufacture and treatment of Tea, which you have considered to be of so great importance as to give room in your periodical for the whole of his last pamphlet on Flavour of Tea, I think you will not object to further benefit South Indian Tea Planters by recording the actual experience of carrying out Dr. Mann's three hours system of rolling and fermenting in South Indian Tea Districts, where some modification of that Time System may be found necessary or desirable. At an elevation of 6,000 feet at this time of the year, when 'withering' is very unsatisfactory, we find that by the adoption of the three hours system of manufacture, the resulting liquor is very pure, and very clean, but it is very pale and very weak, also the out-turn is *very green*. Could you therefore kindly enquire of Dr. Mann whether he is of opinion that under the above circumstances the fixed time of three hours may be safely extended, say half an hour longer without losing any flavour. At this time of the year, owing to paucity of sap, our withering is most unsatisfactory."

In order to save time and to place reliable information before "Nilgiri Planter" and other readers at the earliest moment possible, the Editor forwarded a copy of the above letter to the Indian Tea Association, with a request that it might be referred to Dr. Harold Mann for the favour of comment. In due course the following

LETTER FROM DR. MANN.

was received:—

"I have read with great pleasure the comments of your correspondent 'Nilgiri Planter' on the results I detailed in my recent pamphlet, on the, 'Fermentation of Tea.' He states that if a system of fermenting for three hours is adopted in his district, a pure, clean flavoury tea is obtained, but one possessing a thin liquor and green out-turn, and he asks whether this time may safely be extended without danger of losing appreciably in flavour.

"The experiments I have conducted seem to enable a very definite affirmative answer to be given to your correspondent's question provided always that the fermentation be conducted under aseptic or moderately aseptic conditions. As I remark on page 8 of my pamphlet, (though this cannot be considered as fully proved), I believe that the cause for the rapid decrease which so often takes place in the amount of flavour in the fermenting leaf after about three hours is due to the action of microbes. The fewer, microbes present, or, in other words, the more aseptic the conditions, the less danger will there be of a loss of flavour by extending the time of fermentation. That, in ordinary cases, a period of three hours is too short to give the best liquor in the tea is generally recognised, and it appears that the only way of reaching anything like the highest grade of liquor without losing flavour, is by scrupulous attention to the cleaning and sterilisation of everything which touches the leaf during its manufacture and so eliminating microbes, as far as possible, from the fermenting tea. If this be done, it would seem possible to ferment considerably longer than three hours without the essential oil, on which the flavour depends, being materially reduced."

(Signed) HAROLD H. MANN.

The courtesy of the I. T. A. and their Scientific Officer has been acknowledged by correspondence, but planters generally will appreciate, as the Editor does, the readiness with which the above information has been furnished.

Dr. Mann, by the way, is about to leave the service of the Indian Tea Association and take charge of the Imperial Research Institute at Pusa. However much he may be able to do for the Tea Industry of India in his new post his departure from the old one will leave a gap that will not be easily filled. It is reported that the last contribution he will make to the bibliography of the Tea Industry before taking up his new appointment will be a book on the Tea Soils of this country, which will give reports of those of his investigations on this subject which have not yet been dealt with in this manner.

MEETINGS OF DISTRICT ASSOCIATIONS.

The Moondakayam Rubber Planters' Association.

The following are the Minutes of a Quarterly General Meeting held at Kadamankulam bungalow, at 10 A.M. on Friday, April 26th, 1907.

PRESENT.—Messrs. J. A. Richardson, H. D. Deane, R. Harley, R. D. Fenton, A. E. Vernede, B. Wolfe, C. W. E. Vernede, F. E. Vernède, H. B. Kirk, H. S. Holder (Chairman and Honorary Secretary). Represented by proxy Mr. D. McArthur.

Proceedings of last Meeting were read and confirmed.

The Honorary Secretary then informed the Meeting that in accordance with a Resolution passed at the last Meeting, he had prepared an address to be presented to the Dewan of Travancore on the occasion of his visit to Moondakayam, but that he had heard that the Dewan did not wish to receive any addresses and therefore he sent a copy of what he had drawn up to the Dewan and had asked him to accept it as a memorandum of the needs of the District.

The Honorary Secretary then read the memorandum, which was recorded :

THE MEMORANDUM.

Needs of the Moondakayam District, presented by the Moondakayam Rubber Planters' Association, to Dewan Bahadur S. Gopalachariar, Dewan of Travancore :—

Sir,—On behalf of the members of the Moondakayam Planters' Association we have much pleasure in tendering you a very hearty welcome to this growing district.

We have to thank you as the representative of His Highness the Maharaja for such privileges as have been granted to us and take this opportunity of assuring His Highness through you of our loyalty to his person and our hearty desire to aid in every way possible the successful development of this country.

We venture to express a hope that before leaving the vicinity, you will, in sympathy, enquire into and make yourself acquainted with the more pressing needs of the district.

Moondakayam Hospital.—We would call your attention to the urgent need of a hospital in the village in addition to the dispensaries maintained by the planters themselves on their Estates. To support these dispensaries we understand His Highness' Government are prepared to consider the sanction of grants-in-aid, but a central hospital we are of opinion is absolutely necessary.

Government Offices.—We understand that Government have under consideration the rebuilding of the Court house, Police Station, and Registrar's Office at Ponkunnam and respectfully request you will stop to consider whether in view of the rapidly increasing importance of Moondakayam as a centre, it would not be advisable to have these public offices removed to Moondakayam.

Kutikal Road.—At our last General Meeting your letter No. 864 of the 30th January, for which we thank you, in regard to the Kutikal road was laid before us.

We have under letter requested His Highness' Government to grant us permission to proceed with the cutting of this road and we feel sure that in opening up this part of the country we shall not look in vain for your encouragement, sympathy and substantial support.

We submit that the opening of every acre of rubber at present brings at least 100 rupees into this country, and that the subsequent cultivation of this land will continue, much to the advantage of its people and revenue to bring in large sums of money annually.

Kadamankulam Kuppakayam Road.—On leaving this village for Peermadai you will pass at about the 35th mile a road cut to the east for a distance of about five miles.

This road has been cut at the expense of the planters interested in that part of the valley and we now venture to request that a small annual grant be allowed by His Highness' Government to help defraying the cost of maintaining the same.

Liquor Licenses.—In connection with the opening of liquor shops and granting of liquor licenses, we would ask you to consider the following few points:—

You will understand that the establishment of such shops in the vicinity of Estates must lead to considerable trouble and brawling. It is moreover not unusual for labourers on receiving rice and provisions for their weekly nourishment and the feeding of their wives and children to barter their rice for liquor.

The value of liquor supplied under these circumstances is probably no more than half the value of the grain thus bartered.

Further, the labourer having thus squandered his weekly provisions, leaves his wife and children to starve or else absconds, leaving a large debt on the Estate, and seeks fresh ground to carry out similar tactics.

This and many other evils are the outcome of the establishment of liquor shops near the Estates and we therefore beg that we may be allowed the same privileges as were granted to the Central Travancore Planters' Association some years ago, when Government decided in view of representations made that it would be advisable before allowing the establishment of these shops to obtain the views of the Proprietor or Superintendent of the Estate concerned.

Moondakayam Travellers' Bungalow.—We would represent that the present accommodation is insufficient.

If you will glance at the register, we believe you will find the bungalow to be one of the most frequently occupied travellers' bungalows in the State.

We respectfully submit that it is desirable that it should be added to and further stabling provided and that the bungalow should then be graded as "first-class," and a competent butler appointed.

Wishing you a pleasant tour and respectfully expressing a confident hope that Moondakayam will have cause to look back on this day of your first visit to a rising district as an occasion that inspired fresh confidence and energy in those who are doing their utmost in the face of innumerable difficulties to develop the resources of the country.

THE REPLY.

No. G. 1679.

HUZUR CUTCERRY,
Trivandrum, 8th March, 1907.

To H. D. Deane, Esq., and others, Representatives of the Moondakayam Rubber Planters' Association.

GENTLEMEN.—With reference to your representations *re* the needs of the District, I have the honor to inform you that Government have considered the same. The representations will be dealt with seriatim.

1. **Moondakayam Hospital.**—Government are satisfied from the opinion of the Durbar Physician and by reason of the numerous medical institutions in and near the locality that a Government Hospital is not needed at Moondakayam. Government recently resolved to make a grant for a hospital if opened and maintained at Moondakayam by planters and others. But as no such proposal is forthcoming, the present dispensary maintained by Government will be continued tentatively for another year, so that Government might be better able to judge of the situation.

2. **Government Offices.**—The tracts in and near Kanjirapalli require a Magistrate's Court and a Sub-Registrar's Office. Government are not satisfied in view of the location of a first-class Magistrate's Court at Peermade itself and of the investiture of the Kanjirapalli Magistrate with second-class powers that there is any necessity for having another set of these officers at Moondakayam; nor could they, without causing serious inconvenience to the people of the localities served by these offices, remove them from Kanjirapalli to Moondakayam.

3. **Kutical Road.**—As regards the Kutical road there is nothing to be added to the reply given in this office letter dated 80th January, 1907.

4. **The Kadamankulam Kuppakayam Road.**—This was inspected on 22nd February, 1907, and found to be in an incomplete and unsatisfactory condition.

The question as to whether a road, cut in the Edavagai Estate (land) and solely benefitting the planters should be given a grant from Government will be considered when you are in a position to address Government after securing from the Divisional Officer a certificate as to its being in good order.

5. *Liquor Licenses*.—The question of restricting the grant of liquor license and objection taken to the shop in Mr. Murphy's Estate will be referred to the Excise Commissioner for consideration whether without prejudice to the rights of its renter a different site in the neighbourhood could be chosen for locating it, and orders will be passed on receipt of his report.

6. *Moondakayam Travellers' Bungalow*.—Government accept the recommendation that the Moondakayam Travellers' Bungalow should be raised to a first, class Travellers' Bungalow. Orders will accordingly be issued.

I have the honor to be,

Gentlemen,

Your most obedient servant,

(Signed) A. J. VIEIRA,
Chief Secretary to Government.

Read correspondence.

Resolution by Mr. Deane.—That Government be requested to pass orders as to the boundaries of the jurisdiction of the Cardamom Hill Magistrate as requested by the S. M. P. A. delegate for this Association at 1905 and 1906 Sri Mullam Popular Assemblies.

Seconded by Mr. R. D. Fenton and carried unanimously.

Mr. Deane withdrew his second Resolution in favour of the following amendment by Mr. R. D. Fenton :

That Mr. Holder be requested to seek an early opportunity of in person laying before the British Resident the grievances of the planters of this district.

Seconded by Mr. H. D. Deane and carried by a majority.

Resolution by Mr H. B. Kirk.—That this Association appoint a sub-Committee to consider the question of renting the Residency building, Peermade, as a Sanatorium for the members of this Association.

Seconded by Mr. B. Wolfe and carried.

Mr. H. B. Kirk in regard to the Resolution anent the delay in the opening of the Telegraph Office at Moondakayam said that after the voluminous correspondence read by the Honorary Secretary on this subject he scarcely liked to ask him to write yet again on this subject. The Honorary Secretary replied he would be glad to do so.

Proposed by Mr. R. D. Fenton, that more Association matter should be circulated.

Seconded by Mr. C. W. E. Vernede and carried.

Proposed by Mr. R. D. Fenton, that the Honorary Secretary be instructed to write to the Chief Engineer drawing his attention to the disgraceful state of the Kottayam-Kunli cart-road between mile 22.6 and 24.4.

Seconded by Mr. B. Wolfe and carried.

Proposed by Mr. H. D. Deane, that the Honorary Secretary be requested to write to the Chief Engineer protesting against the wholesale marking with P. W. D. of trees situated on the sides of roads on land bought by certain members.

Seconded by Mr. R. D. Fenton and carried.

Read and recorded Mr. Fenton's letter dated the 5th April 1907, drawing attention to the omission of a portion of a Resolution carried at last Meeting which read as follows :—

That coolies brought in from the Coast by one Kanganey and claimed by another on a different Estate shall first work off their debt to the Kanganey who actually imports them.

CHANGE OF OFFICE-BEARERS.—Mr. R. D. Fenton was elected Committee member in place of Mr. J.J. Murphy, resigned.

Shevaroy Planters' Association.

Proceedings of a Committee Meeting held in the Victoria Rooms, Yercaud, May 6th, 1907.

PRESENT.—Messrs. C. G. Lechler, J. C. Large, C. Rahm, F. D. Short, G. Turner and B. Cayley, Chairman and Honorary Secretary.

1. Read Circular No. 29/07 from Secretary, U. P. A. S. I., informing the Association that Mr. T. F. Main, Assistant Inspector-General of Agriculture, proposes to visit the chief coffee and pepper districts to study the conditions and cultivation of those crops.

Resolved that the Honorary Secretary be instructed to write to the Director of Agriculture, Madras, and invite Mr. T. F. Main, on behalf of the Committee, to visit the Shevaroy during his tour.

2. Read Circular No. 30/07 from Secretary, U. P. A. S. I., informing the Association of the proposal by the Coffee and Cocoa Trades Section of the London Chamber of Commerce to discuss "whether it is possible to take any steps for popularising the use of coffee in the United Kingdom."

Resolved that the Honorary Secretary be requested to write to the Secretary, U. P. A. S. I., to ask what steps if any are to be taken about this at the forthcoming meeting of the U. P. A. S. I., for the S. P. A. is of opinion that this is the time to move in the matter.

3. Read letter from Mr. A. G. Nicholson dated 11—4—07 *re* coffee passes in crop time.

Resolved that the consideration of this matter be postponed to the next quarterly General Meeting to be held in June.

4. Read letter from Mr. J. C. Cobb, dated 20—4—07, asking the Association to grant a reward to his weeding contractor for detecting a coffee theft.

The Association regret that they do not see their way to granting the reward asked for, as the reward fund was raised for public servants only.

5. Read and recorded U. P. A. Circulars Nos. 25, 26, 27, 28.

Papers laid on the table—

Tea Circulars.

(Signed) BERNARD CAYLEY,
Chairman and Honorary Secretary.

The variety of cacao most valued in the preparation of chocolate comes from Caracas; supplies from Guayaquil, from Trinidad and Ocaña most nearly approach the first-named, and are followed by the products of Manáos and Pará. Cuba and Ceylon also produce fine grades of cacao, and the rise in the price of chocolate manufactures has stimulated the growing of the plant in other sections of the world. Production is estimated to have increased from 141,873,142 kilos in 1905 to 148,000,000 kilos, in 1906. San Thomé (Portuguese West Africa), Ecuador and Brazil are the chief contributors, the last occupying the first place in 1906 though only the third in 1905. Trinidad's production has fallen from 20,000,000 to under 16,000,000, but she still holds the fourth rank. As regards consumption, the United States holds the lead, closely followed by Germany, with France, England and Holland next in order. Switzerland is credited with manufacturing more chocolate than all other countries combined, and the annual average exports are valued at \$6,000,000. Of this quantity, the yearly exports to the United States are about \$1,000,000, and to England more than \$2,000,000. Consumption of chocolate within the Swiss Republic is estimated as worth \$2,500,000 annually, a larger per capita ratio being also reported than for any other consuming country.

INDIAN TEA ASSOCIATION.

At a meeting of the General Committee of the Indian Tea Association held on April 30th, Mr. G. Pickford presiding, a letter was read from the Chairman of the Assam Branch, with reference to the proposed joint letter from all Tea Associations in India to the Association on the subject of the Ceylon Import Duty, stating that the Surma Valley had forwarded to him a Resolution by their Committee to the effect that while they recognised the unfairness of this duty they considered the proposal submitted by the Assam Committee to be outside their province, as the assistance of the local Committee had not been asked by the Calcutta or London Associations. Mr. Skinner commented that this resolution wrongly assumed that his Branch was acting independently of the Calcutta Association and was to go direct to the Secretary of State; but the whole idea from the first was that the joint letter should be addressed to the General Committee to strengthen their hands in pressing the matter on behalf of the industry. Mr. Skinner, therefore, asked that the General Committee should address the Surma Valley asking their support to the joint letter. In a subsequent letter of 23rd April, Mr. Skinner sent a copy of the draft letter which had been prepared.

A letter had already been addressed to the Surma Valley Branch inviting them to give their support to the joint letter, and the Committee decided to await their reply before doing anything further.

STATISTICS OF TEA PRODUCTION IN INDIA.

In September of last year a question regarding the annual statistical statements of the production of tea in India was raised by the Director-General of Commercial Intelligence. The information regarding the statistics is based on a form of return issued to planters in different districts, and the Director-General suggested for the consideration of the Committee certain amendments to that form which would make it less likely for mistakes to occur. The Committee, after consulting the Branches with regard to these proposed amendments, addressed the Director-General with some suggestions which it was thought would yield clear and definite results.

The reply of the Director-General was now before the Committee. A careful scrutiny had, he said, been made of the returns received from the managers of Tea Estates in one of the principal districts of Eastern Bengal and Assam. From these it appeared that the figures reported to the district officers by the managers are substantially accurate as regards production and also as regards the total area under tea. But the headings in the form, "Mature plants" and "Immature plants," were found to be misleading, and he proposed to alter these. A draft of a revised form of Return was sent for the consideration of the Association. In it the area under tea cultivation is divided into two parts—"Area which has been plucked during the year" and "Area which has not been plucked." This does away with the ambiguities which have been found under the former headings of "Mature" and "Immature plants." Other amendments were effected, and the opinion of the Association was asked on the proposed new form.

The General Committee approved of the form proposed by the Director-General, and decided to forward it to the District Associations and Branches for their information.

The Madras Government have notified the appointment of Mr. Percy Guard, of Cherambadi, Nilgiri District, as an attesting officer under section 4 of the Madras Planters' Labour Act, 1903.

Lemon Grass in Ceylon is the subject of No. 19 of Vol. 3 of "Circulars and Agricultural Journal of the Royal Botanic Gardens, Ceylon." Messrs. Herbert Wright and Mr. M. Kelway Bamber are the joint authors.

The *Agricultural Ledger* (No. 99 of the Vegetable Product Series) gives a lengthy paper entitled "Notes on Agave and Furcraea in India," by J. R. Drummond and D. Prain.

THE PLANTERS' ASSOCIATION OF CEYLON.

MEETING OF THE COMMITTEE.

Extract from Minutes of Proceedings of a meeting of the Committee of the Planters' Association of Ceylon, held at the Victoria Commemoration Buildings, Kandy, on Friday, the 10th May 1907, at 8 p.m.

LABOUR—PRICE OF RICE.

Submitted letter from Mr. J. B. Coles dated 14th March which had been circulated to the Labour Sub-Committee, regarding cess for the Labour Agency.

Read letter from the Dimbulla Association forwarding copy of a letter addressed to them by Messrs. James Ryan and G. H. Hughes *re* Employment of estate coolies by contractors, at Railway Stations and Kaddai-keepers.

Resolved :—That a copy of Messrs. Ryan and Hughes' letter be sent to the General Manager, Ceylon Government Railway, asking for his suggestions and assistance in this matter.

Submitted letter from the Dimbulla Association *re* Repudiation of Cooly Debts.

Read and submitted letter from the Maskeliya Association forwarding following resolution passed at a largely attended meeting of their Committee held on the 10th April, 1907 :—"That this Association wishes to bring to the notice of Government the serious loss that is being inflicted on the Planting Community through giving notice and leaving the estate on which they are employed, with the sole object of evading their debts due to their employers. And would ask Government to empower Police Magistrates to issue summary Warrants for the detention of kanganies or coolies who have signed Promissory Notes, if he has reasonable grounds for thinking that they have given notice with the object of evading their just debts."

Submitted letter from Pussellawa Association *re* Rosita Estate Test Case and forwarding copy of letter from Mr. P. Atkinson.

Resolved :—That Mr. Atkinson's expenses in connection with the case against Rosita Estate conductor and kanganies, for harbouring bolters be paid by the P. A.

It was intimated to the members present that any member wishing to take a test case against a Superintendent for harbouring or employing a runaway cooly should send full particulars to the Secretary, P. A.

Submitted joint letter by Messrs. W. Forsythe and W. L. Strachan which had been circulated to the Committee of the P. A. on the subject of the Labour Question.

The Chairman, in initiating the discussion on the above subject, asked speakers to confine their remarks as far as possible to the following headings, *viz* :—Reduction of the Import Duty and Railway freight on Rice, (2) The desirability of Legislation for Registration of Tamil Immigrants, (3) The question of improving the condition of the Tamil Labourer by increased wages, issuing Rice at a loss, &c. &c.

A full discussion took place, and it was resolved :—

(1) That a joint sub-Committee of the Planters' Association and Chamber of Commerce be appointed to act on the Question of the Reduction of the Import Duty and Rail freight on Rice, the following representing the P.A.:—Messrs. W. Forsythe, Joseph Fraser, the Hon. Mr. W. D. Gibbon, the Chairman and Secretary, Planters' Association.

(2) That the Chamber of Commerce be also asked to nominate representatives to serve with above sub-Committee in taking up the question of Railway Extension in Ceylon.

(3) That the following sub-Committee be appointed to consider the matter of legislation and if necessary to unofficially approach Government on the subject :—The Hon'ble Messrs. J. N. Campbell and W. D. Gibbon, Messrs. G. N. Thomson, R. Huyshe Eliot, G. C. Bliss, R. A. Galton, R. Morison and Chairman and Secretary, Planters' Association.

It appeared to be the general opinion of the Committee that considering the varying circumstances of different districts and estates, the question of the

best means of improving the condition of the cooly should be left in the hands of the District Associations.

Read further letters from Messrs. David Kerr and F. S. Vowler *re* reduction of price of rice.

Read letter from the Dimbula Association forwarding the following resolution and annexing newspaper cutting of the discussion which arose at their general meeting when the matter was under consideration:—"That the Parent Association be asked to take further steps to induce Government to reduce the railway rates and abolish the import duty on rice."

PROPOSED PEST ORDINANCE.

Submitted a summary of replies received from some District Associations in answer to circular letter asking them for suggestions or alterations in the Draft Ordinance.

Intimated that the Ordinance had passed the third reading.

The Hon'ble Mr. W. D. Gibbon explained the action he had taken in Council in this matter.

PROPOSED RUBBER THEFTS PREVENTION ORDINANCE.

The following resolution was submitted to the Committee of the Planters' Association by the Sub-Committee appointed to act on the question of the prevention of Rubber thefts, held earlier in the day:—"That Government be asked to place dealers in Rubber on same footing as those in Cocoa in regard to Licenses, &c., under Ordinance No. 8 of 1904 either by including Latex and Rubber in that Ordinance or by a new one on similar lines."

Resolved:—"That the resolution be adopted and the necessary steps taken in the matter."

The world's consumption and production of rubber are stated as follows by a Liverpool firm:—

Year, 1st July to 30th June.			Total Production.	Total Consumption.	Stocks, 30th June.
			Tons.	Tons.	Tons.
1899—1900	...	...	53,348	48,352	8,869
1900—1	...	...	52,864	51,136	6,941
1901—2	...	...	53,887	51,110	6,816
1902—3	...	...	55,603	55,276	5,053
1903—4	...	...	61,759	59,666	4,388
1904—5	...	...	68,879	65,083	4,584
1905—6	...	...	67,999	62,574	5,352

Of the 68,000 tons of rubber produced in 1905-6 over one-half came from America, *viz.*, 42,800 tons; about 23,400 tons from Africa, including the East African Islands, while the remaining 1,800 tons came from Asia and Polynesia. Of the 23,400 tons of African rubber, 4,500 tons were produced by the Congo State, 1,500 tons by French Guinea, 1,250 tons by Angola, 1,000 tons by the Gold Coast. In America, Brazil still supplies by far the largest amount, namely, 41,000 tons, then the Central American States with 400 tons, Mexico from 150 to 200 tons, and Bolivia, 1,100 tons, which however, is mostly accredited to Brazil.

In the course of remarks on the report of Pará Rubber Seed the following instructive statement is made:—

"The packing of these seeds for long distances entailed a great amount of work, as they had to be packed in tin boxes, 150 seeds in a tin, with burnt rice dust. Two tins were then enclosed in a canvas covering, addressed, and then sent by post, so as to avoid the seeds being heated in the hold. This plan has been proved eminently successful, and the percentage of seed that arrived safely at long distances such as Jamaica, Solomon Islands, West Africa, etc., has been very high."

RUBBER.

Canker in Para Rubber Trees.

Mr. T. Petch, the Mycologist of Peradenya gardens, writes as follows to the Ceylon papers:—

SIR,—I apologise for the delay in replying to Mr. Cameron's letter, but as I have been doing jury service in Kandy, work is necessarily in arrears.

It is quite possible that infection may be conveyed from one tree to another by the tapping knives, and it may, in some cases, be necessary to disinfect them; but as cankered, i.e., diseased, bark does not yield latex, there is not much object in tapping it. Cankered bark should be cut out and the tree left to recover.

The best disinfectant is carbolic acid. The method of using this was detailed in the circular on "Bud Rot of the Coconut." A tablespoonful of carbolic acid is shaken up with about a pint and a half of water. Put the acid in an ordinary whiskey bottle, fill up with water, and shake it. The tapping knife should be dipped in the mixture, and then wiped on a rag. I should not advise giving the coolie water in which to rinse the knife before disinfecting it, as he would invariably dip it in again afterwards, and neutralise the disinfection. If the knife is not dried, the acid will probably coagulate the latex in the ends of the tubes and prevent its flow. Methylated spirits is not of much value as a disinfectant. In any case, it would be advisable to disinfect all the tapping knives periodically in this way.

It would be misleading to answer Mr. Cameron's questions without any further explanation. It seems to me that three of them have no connection with the subject of "canker," and that his account does not suggest canker at all. "When we picked off the diseased bark in dry plates or scales, it was found that renewal was taking place healthily on the inner or laticiferous bark, through which the disease had not apparently gone. Now, if the bark is "cankered"—that is, if it is affected by the disease already known under the name of canker—it should be discoloured and friable right down to the wood and before long the wood should also be discoloured; there should be no healthy laticiferous bark underneath. If the canker had previously extended to the wood and afterwards dried out, then, on taking off the bark, there would be exposed a patch of wood surrounded by an ingrowing edge of new bark; and even after this new bark had completely covered the wood, there would be a scar in the centre. I have seen many trees from which the bark could be picked off in scales, but they were not diseased. Why was the sound inner bark regarded as a renewal? Is it not rather a survival, after the outer layers have been discarded by a natural process?

At present our attempts to account for the appearances which Mr. Cameron describes are brought to a full stop by our lack of knowledge of the structure and biology of a normally-grown *Hevea*. The question which has to be settled is whether the bark of the old *Hevea* is rough or smooth. Unfortunately it has never been considered necessary to make a study of our cultivated plants apart from their economic aspects, and it is usually left to the mycologist to find out what their normal structure should be, when he is called upon to explain appearance of disease. As our oldest *Heveas* have all been tapped, our present question cannot be answered from direct observation, though a group of fairly old untapped trees at Peradeniya show longitudinal cracks and scaly patches on the outer bark. But the smoothness or roughness of a bark depends on the position of the cork-cambium, which lies in the cortex outside the other cambium of which we take such great care. Speaking generally, if this cork-cambium (Phellogen) lies near the surface, we get a smooth bark as in the English beech, and (apparently) in *Ficus elastica*; but if it lies deeper, we get a rough bark, as in the oak. Everything outside the phellogen is cut off from the living tissues, and dies.

From a scientific point of view, only this dead part is bark, and the English beech has no bark.

It seems from the structure of the bark of *Hevea* that it should be rough and scaly on old trees since the phellogen lies next to the laticiferous inner-

layer. On young trees there is no division into laticiferous and dead bark ; it is only later that the outer layers are cut off and die.

Thus there should be an accumulation of dead bark on the outside of tree, and this may scale off. Any old jak tree will show this quite clearly ; the bark can be scaled off in patches down to the laticiferous layer. On the contrary, young jak has a smooth bark. As I have frequently examined these scales on Hevea, and have not been able to find any fungus in them, I am driven to believe that this is a normal feature of Hevea. It may be occurring prematurely, but I cannot find that it is a sign of disease. Scales frequently from at the edge of the tapping cuts, and in the case of the spiral, where say three inches of bark are left between successive spirals, this bark is naturally cut off down to the level of the renewed bark. The renewed bark of the full spiral is covered with scales at Peradeniya, but this is due to the formation of a new phellogen to replace the one cut away. Probably the renewed surface tends to be more scaly in a dry situation. The outer brown bark is quite dead, and must therefore, crack as the tree increases in diameter.

Two years ago it was freely stated that all the Heveas at Henaratgoda were cankered. In actual fact, the bark was scaly, and the scales, as big as one's hand, could be readily detached ; indeed, they could be rubbed off. But the trees are still alive and healthy, though they have not, to my knowledge, been treated for canker.

I should like to know the age of Mr. Cameron's trees. Meanwhile his questions may be answered as follows:—

(1) The inner laticiferous bark of Hevea is not immune from canker. I should rather say that it was the part attacked. When the bark is cankered, the dirty claret-coloured discolouration usually extends right through to the wood.

(2) If the scales were produced by disease of any kind, it would be essential that they should be removed. On the present evidence it does not make any difference whether they are removed or not ; but I should recommend their removal to prevent water lodging behind them.

(3) It is impossible to say at what stage the spores of a fungus would be found on the scales before it has been ascertained what kind of fungus, if any produces the scales.

(4) Canker is usually indicated by a darkening of the bark ; and when the dark patch is cut into, the bark is found to be of a dirty claret colour, instead of white or clear red. This condition spreads rapidly. Longitudinal cracks are not necessarily a sign of canker.

(5) "Canker" is supposed to be caused by a "nectria" but the fructification of this fungus is never observed until the bark has been dead for some time. As in cocoa canker, excision of the diseased bark is the only practicable treatment.

I have just examined the Heveas at Peradeniya, which were tapped with knife and pricker in 1905. The renewed surfaces are covered with lumps which are out-growths from the main wood of the stem, not isolated knots such as often occur in untapped bark. It is impossible to say with certainty that this is due to the use of the pricker, as there are no unpricked trees for comparison but it seems probable that this is the case. If this is so, the pricker should be discarded.

Rubber Cultivation (with special reference to parts of the British Empire).

Mr. Herbert Wright's exhaustive paper on the above subject, read before the Society of Arts, attracted a large audience. The chair was occupied by Colonel Prain.

Mr. Wright pointed out that almost every tropical institution has turned its attention to this seemingly profitable cultivation. But neglecting all these side developments, it may be safely stated that to-day there are no less than fourteen million pounds of English money represented as paid-up capital in companies directly or indirectly concerned with rubber-growing, and registered in England and our East Indian possessions. Furthermore, it may be estimated that

approximately £30,000,000 worth of rubber may be consumed during the present year. These facts, though indicating that large sums of money have been invested in the production and utilisation of rubber, are insignificant compared with developments which are at the present time in an embryonic stage. Nevertheless, they show that the cultivation and exploitation of rubber plants have to be taken seriously, and barring unforeseen developments we may expect the final result to be such that British possessions in the tropics will be placed in the front rank as producers of plantation rubber. The stimulus which had been given to the exploitation of wild rubber and the establishment of plantations was evident from a consideration of the figures showing the consumption and value of rubber during the last few years; the increase in value from about 2s. to over 5s. per lb. had been encouraging to rubber planters, and the increase in consumption had inspired confidence in all concerned. Furthermore, the developments in the past few years on Eastern plantations had shown that yields are obtainable which were once considered impossible, and the expenditure incurred in collecting and preparing the rubber was rapidly being brought near the minimum. The gradually increasing demand for raw rubber, the remunerative prices at present paid for it, and its relative importance among the products of the tropical world were all that could reasonably be desired, and under these circumstances we might naturally expect to see a fair amount of capital invested in many islands and territories in the tropical zone. The promising importance of plantation and semi-wild rubber had apparently, as far as many English capitalists are concerned, been more attractive. He would indicate the sums invested in notable properties:—

PAID-UP CAPITAL OF RUBBER-PLANTING COMPANIES.

	£.
Malaya	2,048,281
Ceylon and India	415,218
Islands in Indo-Malayan region	651,123
America	765,000
Africa	430,000
Sterling equivalent of capital existing in rupee and other local currency in: Malaya	532,748
Ceylon and India	370,566
Islands in Indo-Malayan region	28,333
Companies growing rubber in conjunction with tea, cacao and other products	9,121,761
Grand Total	14,363,325

Only those companies registered in Great Britain, Ceylon, India and Malaya had been taken into account. English capital had also been invested in the cultivation and exploitation of rubber in numerous East and West Indian Islands, in tropical America and Africa, and very large sums from continental areas had been supplied for the same purpose. The shares of many concerns, now prominently before the public, were standing at very high premiums, representing in many cases from three to eight times the paid-up capital; there were numerous semi-public and private properties in the Indo-Malayan region about which little could be at present divulged; numerous cacao, tea, and coffee estates were gradually but surely being supplanted by rubber-producing species; large areas are being daily alienated from rubber; forests, with indigenous rubber plants, were being exploited under scientific guidance, and almost every tropical institution had turned its attention to this seemingly profitable cultivation. But neglecting all these side developments, it might be safely stated that to-day there were no less than £14,000,000 of English money represented as paid-up capital in companies directly or indirectly concerned with rubber-growing, and registered in England and our East Indian possessions. Furthermore, it might be estimated that approximately £30,000,000 worth of rubber may be consumed during the pre-

sent year. As to the sources of rubber, the most striking feature was the almost absolute dependence, to-day, of the manufacturers on the rubber obtained from trees indigenous to certain tropical forests and their independence of the plantation product. Tropical America was the most important centre for rubber collection (about 60 per cent.) Tropical Africa the next (30 to 35 per cent.), and tropical Asia, the least important, since it only contributed last year a very small proportion (about 3 per cent.), made up of wild and plantation material. The richest wild rubber areas in tropical America (Brazil, Venezuela, Bolivia, Peru, Central America, and Mexico) and in tropical Africa (Congo Free State) were not British, though capital from this country had been recently diverted to parts of these two vast continents for the exploitation of rubber.

Many trials of Brazilian species had been made in Africa, East and West Indies, India, Malaya, Borneo, Philippines, New Guinea, Fiji, etc., and of African species in parts of America and the East and West Indies. In the distribution of rubber yielding plants to various parts of the British Empire, the Government had taken considerable interest. The gradual development of the plantation rubber industry to the position it occupied to-day could be associated largely with the activity of the various Government botanic departments in different parts of the world. The Royal Gardens, Kew, naturally ranked of first importance in this respect as a centre of distribution of species collected from all parts of the tropics. In regard to the plantation rubber industry as at present developed in the three great rubber areas, its exact importance in areas where indigenous species were exploited was difficult to ascertain, and the various compilations regarding this point showed considerable differences in areas planted. A very responsible journal, viewing the probable future developments less than two years ago, predicted that by the end of 1906 there would be planted in the East about 100,000 acres of rubber trees and suggested that an average yearly increase to the plantation rubber acreage in the East might be taken in round figures at 20,000 acres. But it is obvious from previous considerations that there were now nearly one-quarter of a million acres, and the propositions now being considered in London alone suggest that during the next few years the annual increase in planted acreage was likely to be on a very large scale, especially in Ceylon, Malaya, Borneo, Java and Sumatra. Thousands of acres had been planted during the last two years, and the progress of events in Ceylon was of interest, since that island, by its phenomenal activity, had planted more since the beginning of 1905 than it did in the whole of the previous twenty years, though seeds were then available. The recent activity in Ceylon had placed that small island, as far as insular plantation acreage was concerned, in the first position in the British Empire, but how long it would hold that position it was difficult to foresee. Furthermore, Ceylon doubled its rubber production in 1906 over 1905, the amount produced, less that re-exported from the Straits and China, being approximately 140 tons. The future importance of plantation rubber was one which could not be neglected, especially in view of the inquiries regarding the supplanting of wild rubber by that from plantations. There could be no doubt about the question of economy in the two classes; very many of the wild rubber areas in Africa and America were now being gradually transformed into plantations of some kind or other. The general tendency of present-day operations was to lead to an extension of regularly planted estates where wild rubber forests or ordinary forests previously existed and a reduction of genuine wild rubber areas; in view of these facts it seemed desirable to determine the equivalent of the wild areas now exploited in terms of plantation acreage. Assuming that the consumption for 1906 was 65,000 tons, what plantation acreage would be required to supply that amount? During 1905 and 1906 the trees on plantations in Ceylon, Federated Malay States, Straits Settlements, and parts of Southern India gave an average annual yield of 1 to 1½ lb. of dry pure rubber per tree. If we took the minimum yield of ½ lb. per tree per year from estates planted 20 ft. by 15 ft. apart, the yield was at the rate of one ton of pure rubber per twenty acres; if they allowed at the rate of 1½ lb. per

tree, which was by no means excessive where labour for tapping was available, they had one ton of rubber per year from every block of ten acres. The 65,000 tons of wild rubber supposed to have been consumed in 1906 might be roughly estimated to have contained about 20 per cent. of impurities, so that its equivalent in pure plantation rubber would be about 52,000 tons; to produce this amount would require 1,040,000 acres on the minimum estimate, or 520,000 acres only on the estimate of $1\frac{1}{2}$ lb. of pure rubber per tree. The plantation acreage in the Indo-Malayan region already promised to be not much less than 250,000 acres.

The planting of rubber trees necessitated the destruction of the original forests, but sooner or later a new forest took the place of the old. The cultivation of rubber vines (*Landolphia*) did not incur the destruction but demanded the retention of a part of the original forests, as the vines must have some means of support, such as stems along which they can climb. Rubber cultivation was, therefore, fundamentally different from that of tea, cotton, camphor, etc. and in many cases led to the re-forestation of lands which had been allowed to lapse into waste compounds or chena land. The systems of tapping now in vogue were numerous; they include the V, single oblique, half herring-bone, full herring-bone, invested V., half-spiral and full spiral systems. The lines in each system usually inclined at an angle of 30 to 45 degrees, and are distanced approximately 12 in. apart. Most of these systems were planned out on several or four sides of each tree, and one part or side was tapped on successive days; the full spiral system is the only one which completely taps the whole of the cortex. When the tapping areas, on each of the four sides of a tree, were disposed so as to face north, south, east and west, compass tapping is often adopted. On badly tapped trees, or those with irregular gnarled surfaces, a zigzag system was necessary in order to secure a gradual slope of each line between the knots. The V. system was largely adopted in the early days and was among the oldest known; the inverted V and the full spiral systems were the most recent; the half or full-herring-bone principle appeared to be more frequently adopted than any other system. The full spiral system gave very large yields, but if the tapping was carried on too rapidly, it might endanger the health of the tree and involve considerable waste of cortical tissues.

Owing to the co-operation and courtesy of the planting community in Ceylon, South India, and Malaya he (Mr. Wright) had been able to collect a considerable number of figures showing the yields on small and large properties for a few years in succession. The most important fact which he wished to mention was that the yields obtained from the same trees in successive years had shown a slight increase. This was especially true in those cases where the tapping operations had not led to too rapid excision of the cortex. But though this was correct for small and some large estates, and though certain small properties had shown a very large increase per tree, yet the yield per acre on same plantations possessing a large number of mature trees had shown a reduction. The cause for this reduction was that a large acreage had been tapped whenever labour permitted; sometimes only sections of the estates had been tapped, and in such instances each tree had not received the attention which those on smaller properties had. Sound trees of *Hevea Brasiliensis* would stand tapping every alternate day throughout the greater part of the year, and while several friends stated they were able to do this at present, others were equally emphatic on being unable to adopt such frequent tapping.

Mr. Wright dealt at some length with the development of the rubber market, the export, the sources of supply, the distribution of plants, methods of cultivation and the difference between wild and plantation areas. He referred to tapping methods, the yield from trees, etc., and imparted a fund of technical information to growers. His paper, in fact, was a clever treatise on rubber cultivation and the rubber industry, compressed within a comparatively small compass, and the information conveyed was highly appreciated by those present.

TEA.

The British Tea Duty.

Discussion in the House of Commons.

In the course of the debate on the Budget Resolutions, the resolution re-imposing the duty of five pence per pound on tea was discussed.

Mr. FLETCHER moved and Mr. Courthope seconded an amendment in favour of the reduction of the duty by one penny.

Mr. ASQUITH said he should be very glad if such a reduction could be effected; but were he dealing with the relief of indirect taxation and the question arose as between sugar and tea he should be inclined to give preferential treatment to the former. In his present position, however, he could relieve neither; an under existing circumstances, a penny reduction on tea would not appreciably benefit the consumer. (Opposition cries of "Why?") Because the conditions of the trade had very considerably changed during the past year. There had been a large foreign demand, especially in Russia, for Indian tea, with the result that wholesale prices had gone up a penny per pound, and he was advised that in the prevailing state of the trade the benefit of a penny reduction would accrue to the producer and to the middleman rather than to the consumer. He should rejoice to see then duty back to the pre-war level, but after most careful consideration found he could advise no abatement at the present moment.

Mr. AUSTEN CHAMBERLAIN: thought the House might discount a great deal of the Chancellor's theoretical distinctions between tea and sugar. The Right Hon. Gentleman drew too fine a line of distinction between them as luxuries. Personally he thought a reduction of a penny on tea would reach the consumer very appreciably. The burden of the Chancellor's song when he was not defending a tax imposed by himself was that a duty was always borne by the consumer. If a reduction of duty went to the grower or middleman, was it not equally certain that under all conditions an increase in duty would have to be borne by the middleman or producer. (Hear, hear.)

Mr. ASQUITH: I have always said so.

Mr. CHAMBERLAIN: I take note of the admission. I ventured to say the other day that the right hon. gentleman was starting a new tune on the subject of Fiscal Reform, and the admission we have now elicited from him will afford us valuable material and argument in favour of that policy. (Opposition cheers.)

Mr. ASQUITH: I have said over and over again during the last three years when we say that a duty ultimately falls on the consumer we speak of a tendency, which may be averted, delayed, mitigated, or counteracted by other temporary causes.

Mr. CHAMBERLAIN: When hon. gentlemen opposite say in general terms that any tax on an article will raise the price to be borne by the consumer they do not mean that. (Hear, hear.) Continuing, the right hon. gentleman said he regretted that his hon. friend had not moved to reduce the tax by twopence instead of by a penny. He should vote for the amendment as a protest against the narrow limits within which the Chancellor of the Exchequer had confined his attempts to raise revenue, and as an expression of opinion that the time had come when we ought to seek our resources in wider ways and by methods which would inflict less hardships on individuals and on the poor and which would result in the increased prosperity of the country. (Opposition cheers.)

Sir E. Sassoon pointed out that tea was a partially manufactured article which came almost exclusively from our Colonies, and asserted, therefore, that it was iniquitous that we should tax it heavily while permitting foreign manufactures to be imported free of duty. (Opposition cheers.) Whenever a suggestion was made that the basis of taxation should be widened the Government said they had a mandate against it. The Government claimed to have many mandates but he would like to know what was the foundation for the claim. There was an interesting animal which had feet like a bird, claws like an owl,

fur like a badger, and a tail like a rat, and which swam like a fish; and the Government seemed to be possessed of as many and as varied characteristics. (Laughter and Opposition cheers.)

Sir G. PARKER supported the amendment because he wished to enter his protest against the present narrow basis of taxation. The Chancellor of the Exchequer appeared to think that if he took a penny off the tea duty the consumer would benefit not by a reduction in price but by obtaining an article of a better quality. Did any of the right hon. gentleman's supporters believe that was what occurred? If a small tax was put on corn it would not be felt by the consumer, but it would give some sort of preference to the Colonies and assist them in the development of their resources.

The Deputy Speaker, interposing, said the hon. gentleman was travelling wide of the question before the house.

Lord R. CECIL said several hon. gentlemen had spoken about the great advantage of broadening the basis of taxation. He should be very glad if anyone could explain to him the meaning of that phrase. (Laughter.) He objected to all taxation. He disliked paying taxes himself, and he had no reason to suppose that in this he was peculiar. (Laughter.) On the amendment of his hon. friend he should support the Government, because the money had to be raised.

Mr. HICKS-BEACH supported the amendment, because he believed a reduction of a penny would benefit the consumer.

Mr. F. E. SMITH wished to remind the House that in Germany the tea duty was only 1½d. per lb.

On a division the amendment was rejected by 250 to 146, and the resolution was then agreed to.

[In the division the whole of the Nationalists present (about fifty in number) voted in the minority against the Government, as did the bulk of the Labour members. Mr. A. Henderson, however, and a few others of the Labour group went into the same lobby as the Liberals. A handful of Unionists, among whom were Lord Robert Cecil, Mr. Lambton, Sir Fredrick Banbury, and Mr. Stuart Wortley, voted in the majority; but the remainder of the Opposition supported the amendment.]

India is by no means the only sufferer from the enormous increase that has taken place in the cultivation of Coffee in Brazil. By far the most important article on the list of annual exports from Venezuela is coffee, which formed 42.7% of the total value of the exports in 1905 and 45% in 1906, the respective quantities being 39,440 tons and 42,806 tons. The enormous output of coffee from Brazil has re-acted upon this and almost every other branch of industry in Venezuela. The profits from the coffee crop were in former times so large as to have caused most other articles to be purchased abroad and imported as against this one product, and the whole prosperity of the country depends largely on this one article of commerce; but few other sources of wealth are cultivated, and the result has been that nothing has as yet been found to replace coffee effectively. The United States, the Netherlands and France are the chief purchasers of Venezuelan coffee, about half of which is exported from the Maracaibo district, Puerto Cabello and La Guaira coming next in importance.

The State of Sao Paulo in Brazil holds undisputed right to the title of greatest coffee grower in the world. Its huge fazendas (or plantations) produce half the world's supply of the bean, and its fertile territory has placed it in the position to hold its own, no matter how the demand may grow. The coffee industry employs 420,420,000 workers, and 50 per cent. of the capital is claimed for coffee raising. The large sum of over £85,000,000 is represented in coffee culture alone. The cultivation of the bean has so absorbed the inhabitants that other industries are neglected, notably the raising of cattle, which could be done at a large profit, as the wide plains are so abundant with grass. Coffee plantations are found at a short distance from the chief coffee port, Santos.

Assam Tea Industry.**TWENTY YEARS' PROGRESS.**

Some interesting facts and figures concerning the progress of the tea industry in Assam are contained in the "Report on tea culture in Eastern Bengal and Assam for the year 1906," which has been issued by the Government of Eastern Bengal and Assam.

The Report, it is explained, is merely an explanation of certain tea statistics prescribed by the Government of India. It is intended to explain such of them as show changes of importance, and to give some general information as to the effect of the circumstances of the year on the position of the industry, but a brief retrospect of the progress of the tea industry is given. The following statement indicates the development of the industry in the districts of Assam during the twenty years ending 1905:—

Year.	Area planted in (acres)	Increase in each five years.	Total crop in lbs.	Increase in each five years.
1885	.. 197,510	43,853	53,617,020	19,603,437
1890	.. 231,038	33,528	82,119,252	28,502,232
1895	.. 276,014	44,976	99,524,574	17,405,322
1900	.. 347,327	61,313	141,118,644	41,594,070
1905	.. 339,206	1,879	151,904,806	10,786,162

A FAVOURABLE SEASON.

The figures quoted are those supplied by managers of gardens, and though they may not represent the facts with exactitude, their relative accuracy may be accepted. The area planted out shows an increase of 172 per cent., and the total crop of 283 per cent. The rate of development was abruptly checked during the last five years. A recognition of the results of overproduction led many estates to lessen their outturn of tea and to strive after a better quality, and this period was that of highest taxation in the British Isles. For the year 1906 the outturn of the province showed an increase of nearly 15 million pounds, of which the Assam districts accounted for over 11 million pounds. A favourable season and increased demand from British Colonies and from foreign countries, and a diminished production in Ceylon contributed to the increase. In spite of labour difficulties the prospects of the tea industry in this province, says the Report, may be said to be encouraging. The Assam-Bengal Railway has, during the last three years, facilitated communications greatly, and many of the Railway Companies which carry labour into the province have recently granted concessions lessening the cost of transport of coolies. The development of the Port of Chittagong is receiving the special attention of Government, and in course of time this should lead to a reduction in freight charges and also facilitate export.

To turn to the statistics for 1906, which include figures for the Chittagong and Jalpaiguri districts, where alone tea is grown in Eastern Bengal, there were at the close of the year 930 gardens. Of these 439 are in the Brahmaputra Valley, 281 in the Surma Valley, 185 in Jalpaiguri, and 25 in Chittagong. During the year 13 gardens were amalgamated with other gardens, and one new garden was opened.

The daily average number of labourers employed in 1906 was 485,960, of whom 10 per cent were temporary hands. The proportion of temporary to permanent hands varied considerably. In the Surma Valley they formed only 6 per cent, of the labour force, in the Assam Valley 7 per cent., in Chittagong 16 per cent., and in Jalpaiguri 31 per cent.

The total area leased by planters at the close of the year amounted to 1,338,753 acres, of which, according to the returns received from managers, 423,828 were under tea cultivation, showing an increase of 1,493 acres as compared with the preceding year. As, however, 9,940 acres under tea were reported to have been abandoned during the year, and only 6,280 acres were newly planted out, it is obvious that the returns can be accepted as only approximately correct.

The majority of gardens are under the superintendence of salaried managers. Of the area actually under cultivation, 407,277 acres are owned by Europeans and 16,551 by Indians.

INCREASE IN OUTTURN.

The total outturn for the province was returned at 207,670,288 lbs., against 192,693,635 lbs. of the year preceding. All districts except Chittagong contributed to this increase of 14,976,653 lbs., the largest increases occurring in the Lakhimpur, Darrang, Jalpaiguri and Cachar districts. Of the total outturn, 3,893,627 lbs. are reported to have been manufactured as green tea, of which 613,629 lbs. were manufactured in the Brahmaputra Valley 2,438,183 lbs. in the Surma Valley, and 841,865 lbs. in Eastern Bengal. In 1906 the outturn of green tea was 2½ million pounds. These figures, however, are not free from suspicion.

Seven hundred and thirty three maunds of tea seed were exported from the Brahmaputra Valley, and 133 maunds from the Surma Valley. No tea seed was imported into the province during the year, requirements being met locally.

It would be interesting, adds the Report, to trace the growth of the consumption in India of local teas, but no data are available. The sales in London and Calcutta accounted for 184 million pounds, on the assumption that each package weighs on the average 100lbs. as advised by the Indian Tea Association. The sales of a year are not restricted to the outturn of that year, but the figures indicate roughly that the difference of 19 million pounds has to be accounted for.

As already stated, the prospects of the tea industry may be described as hopeful. It is reported, however, that expansion is checked by the short supply of labour. The Commissioner of the Assam Valley Districts remarks: "The year was on the whole a prosperous one for the tea industry, the yield being generally good, while prices rose in consequence of increased demand, especially for 'outside' markets. The prospects of the industry would be good if it were not for the labour difficulty, which promises to become more acute in the near future."

In the annual report of the Botanic Garden, Singapore and Penang, for the year 1906, it is remarked that in the Economic Garden it had for some time been impossible to grow the rubber trees on account of a plague of brown slugs which, concealed by day in the grass weeds, attacked the buds of the rubber by night, preventing its growth. The result of the cultivation of catch-crops between the young rubber has been the extermination of this pest, and the growth of the young plants has been very satisfactory.

The next paragraph is of a less decisive character:—

"The question of catch-crops for rubber has been one of the most important ones of the year, and is the subject of a large quantity of the garden correspondence. It is regrettable that the paucity of the staff prevents time being given to experiments on this subject carried out as they should be."

A special survey is being made of the chief rubber-producing districts of French West Africa, which will eventually be divided into three categories, as follows:—

1. Unexploited districts. These consist only of a few regions in the Ivory Coast forests.
2. District which are exploited, but have not been spoiled by excessive production and unscientific methods of collection.
3. Districts which have been spoiled for the above reasons. These latter are in the majority.

When the survey and classification are complete, the Governor-General will by decree close the worst districts to rubber collection, so as to give the plants time to recuperate. A beginning will probably be made in 1908.

OFFICIAL PAPERS.

Land for Rubber Cultivation in Mysore.

MODIFICATIONS IN THE RULES.

In an order dated 18th April 1907, the Government of His Highness the Maharaja of Mysore deal with certain representations put forward by Mr. Pilkington, of Koppa. They say:—

With a view to prevent speculation in respect of lands granted for rubber cultivation on special terms, and to ensure that the concessions are availed of only by those for whose benefit they were mainly intended, viz., persons having already local interests in the State, it was laid down in para. 9 of the above Order that no grantee will have the power of alienating any portion of the land granted, until receipt of the title-deed after payment of the full upset price of Rs.10 per acre, which would not be until after the expiry of five years from the date of the grant. It is now represented that since rubber-planting requires large capital and the use of costly machinery, the above restriction against alienation is likely to prevent many persons who are *bonâ fide* planters from availing themselves of the liberal terms offered by Government, inasmuch as they are precluded from admitting friends or relatives into partnership so as to be able to raise the necessary capital. It is therefore suggested that the terms should be modified so as to give the power of alienation even before the completion of five years, with such conditions as may be necessary in the interests of Government. It is also proposed that the condition that land within 50 yards of perennial streams should not be cleared, should be relaxed, and that the raising of catch crops till the rubber plants come to bearing, should be permitted. After careful consideration of the points urged, the Government of His Highness the Maharaja are pleased to make the following modifications in the rules contained in the Government Order of the 28th September read above.

In order to attract capital to the industry it is essential that the planters should have power to take in partners and form syndicates to develop the business, etc. In such cases, the requisite transfer of interest will be permitted, if the upset price of Rs.10 per acre is paid up, when a clear title will be given to the planter.

The rule reserving a margin of 50 yards around springs and on either bank of perennial streams, etc., is based on good grounds, and Government are not prepared to relax it.

The Agricultural Chemist is of opinion that the raising of catch crops on the lands will not be detrimental to rubber cultivation, but is likely to be useful to it by protecting the soil, which would otherwise remain exposed when the tree growth therein is removed. Catch crops will therefore be permitted to be raised and no assessment will be charged for such cultivation. It should be distinctly understood that the catch crops should be strictly subordinated to the cultivation of rubber and should cease to be raised when the rubber trees have begun to yield.

The representation as to delays by local authorities in disposing of applications, will receive early attention. The Conservator of Forests has already been instructed to publish a list of all lands which are proposed to be reserved and will not be available for rubber cultivation. He is requested to expedite the publication of the list and to see that unnecessary delay in the disposal of applications for lands is avoided. When the application is for more than 100 acres of land in one block, it is desirable that the District Forest Officer should personally inspect the land and ascertain for himself whether any particular area should be granted or excluded.

A list of lands not available for rubber, coffee or other cultivation, such lands having been reserved or recommended for reservation as State Forests has been published in the *Mysore Gazette*,

Cardamom Lands in Mysore.**REDUCTION OF ASSESSMENT REFUSED.**

Messrs. Middleton and Brooke Mockett having applied for the reduction of the rate of assessment on their cardamom estates in the Manjarabad Taluk, on the ground of very serious depression in the prices of cardamom in the markets for some time past, the Mysore Government, in the course of an order on the subject, dated Bangalore, 18th April, 1907, remarked that the total extent of the estates held by Messrs. Middleton and Brooke Mockett in respect of which the present application is made, is 7,862 acres and 8 guntas and 1,177 acres and 11 guntas respectively. These lands were originally assessed at the varying rates of one rupee, eight annas and four annas per acre under the Coffee Rules of 1881. On the representation of the owners of Coffee Estates, in the taluks of Mudgere, Koppa and Manjarabad, that the cultivation of cardamom in places unfit for coffee owing to either excessive rainfall or exposure, was not profitable while the assessment was very heavy, the Government considered that it was inexpedient to apply to estates or portions of estates under such disadvantageous conditions, the maximum rates of assessment for coffee lands and that they should consequently be charged with a reasonably reduced rate of assessment not less than 8 annas per acre prescribed under para. 3 of the Coffee Rules for very poor lands or lands greatly deteriorated in condition. Accordingly in Government Proceedings dated 20th February 1897, the entire area of the estates held by Messrs. Middleton and Brooke Mockett was, in common with other estates, assessed at a uniform rate of 8 annas per acre, on condition that the holders should not thereafter select and resign parts of a survey number. But it was provided that if the holder of any survey number applied for its sub-division with a view to the inferior portions thereof being resigned, the original rate should be re-imposed on the portions elected to be retained. The revision of the assessment as above resulted in a loss of revenue to Government to the extent of Rs.3,780 in the case of the estates in question.

Government hold that the existing rules do not provide for further reduction of assessment in such cases and that it is undesirable to revise the entire rules for the grant of lands for coffee cultivation to meet the present cases. No special assessment is levied in the case of lands particularly adapted for cardamom cultivation, and as experience has proved that the ordinary assessment fixed for coffee lands has not in any way tended to impede the expansion of cardamom cultivation, Government do not deem it necessary now to fix a different rate of assessment for cardamom lands. As the lowest rate permissible under the rules is 8 annas per acre, if Messrs. Middleton and Brooke Mockett elect to retain the entire extent of lands now in their possession, they should continue to pay the above uniform rate of assessment. If, however, they find it unprofitable to retain any portion of their estates under such a condition, it is open to them to apply under para. 2 of the Government Order of the 20th February 1897, for a classification and sub-division of their survey numbers with a view to resign all unsuitable lands and retain only those which they consider can be worked with profit even with an assessment of one rupee per acre. If they agree to the adoption of this course, subject to the conditions laid down in para. 9 of the Coffee Rules and to bear the cost of such survey and the erection of boundary marks, the necessary orders will be issued to the Survey Department. It should be brought home to the applicants that the Government of His Highness the Maharaja have dealt extremely liberally with the owners of cardamom estates when the rates of assessment prevailing elsewhere are considered.

The Coffee crop has now descended to the third place in Porto Rican exports, caused by, primarily, the effects of the great hurricane of 1899 and afterwards the loss of market through change of nationality and consequent change of coinage, and finally through its having to compete unprotected in the markets of the United States against the large crops of Brazil.

The Planters' Chronicle.

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THE U. P. A. S. I.

(INCORPORATED.)

The Annual Meeting, 1907.

Arrangements have been made to open the next Annual Meeting at the Mayo Hall, Bangalore, on the 19th August 1907. A preliminary draft agenda paper has been circulated with a view to suggestions being made regarding additional subjects; and in the course of the next few days it will be possible to send round a list of such suggestions as have been received.

Popularisation of Coffee.

Although Mr. Sanderson is desirous that this matter should not be left over until the Annual Meeting, it will certainly be discussed on that occasion. In the meantime it may be stated that the Committee of the South Mysore Planters' Association has adopted the following resolutions:—

That this Committee are strongly in favour of a campaign for the popularisation of Coffee being inaugurated and are of the opinion that a cess levied by Government would be the most satisfactory way to get the necessary financial support.

That as this matter is so important, it be prominently brought before the U. P. A. S. I. at their Annual Meeting to be held in Bangalore on 19th August next.

That meantime Messrs. W. H. Sprott, J. A. Harris, Brooke Mockett, and R. H. Elliot, as representing Southern India, be asked to confer with Mr. Sanderson in the formulation of any scheme which the London Chamber of Commerce bring forward."

In a letter dated the 18th idem, the Hon. Secretary, Coorg P. A., writes concerning the scheme to popularise coffee:—

"I mentioned the subject at a meeting of our Association the other day, and though the idea, of course, met with much approval, yet our members were loth to undertake to tax themselves for the support of a scheme which apparently, is very much in the embryo stage at present. However, I have no reasonable doubt to suppose that were a sound and workable scheme prepared with a view of 'popularising Coffee' and the consumption thereof, strong support therefor would not be forthcoming in Coorg, though already it appears to me that the payment of the tax which it will be necessary to impose upon Planters in order to provide a portion of the funds for the working of the scheme should be made general, and, therefore, compulsory in some way, and levied upon every cwt. of Coffee exported from this country by them or others as a regular tax, or cess to be collected by Government, or through some other agency in proper form, and not left to the individual liberality of some Planters who always subscribe funds towards any schemes brought forward with a view to improving the position, or prospects of Planting Interests, and thus not only would a much larger supply of funds be forthcoming

towards the expenses of the proposed scheme, but the tax would, under these circumstances be imposed in just proportion upon all who exported Coffee from this country."

In a letter dated 27th June, the Honorary Secretary, Coorg Planters' Association, makes the following further remarks :—

"In reply to your letter of 20th instant *re* "the Popularising of Coffee" question—though, doubtless, this important matter should be pushed through as quickly as possible, yet I do not quite understand Mr. Sanderson's reasons for specially asking that this question be *not* left in abeyance till the next Annual Meeting U. P. A. to be held in August next, seeing that consent to the support, or otherwise of the project has to be obtained from countries like Costa Rica, Guatemala, and other Central American Coffee centres, to say nothing of Brazil, and moreover, we are given to understand that the difficulties in obtaining any decision on this matter from these countries will probably be great, and so I think we may safely assume that in any case a considerable period of time will elapse ere any reliable information is forthcoming from the whole of these Coffee centres. This "Popularising of Coffee" too, is, in my opinion, a matter of such importance to the Planting Community, at large, that doubtless the sooner a sound and workable scheme in connection with the same is promulgated the better, but it would be a thousand pities to run the slightest risk of losing any chance of support thereto by undue haste, and, as a matter of fact, unless and until the idea has been thoroughly threshed out, and a business-like and practicable scheme laid before the Planting Public, I do not see that they can be expected to say whether they will support the movement or not. We must have more information if we are to do any good, and if such is not forthcoming from some source or other, I much fear that the scheme will fall through, or meet with but poor support at the best, any way so far as Southern India is concerned. The forthcoming Annual Meeting U. P. A. is, in my opinion, the proper and earliest available occasion on which to discuss a question of this description, and some definite information on the subject should be available for the benefit of the Delegates thereat, if we are to expect the support of the Planters of Southern India to the movement in the immediate future. In any case to endeavour to rush through a scheme of such magnitude, is, I consider, the best way to court disaster."

The members of the Shevaroy Planters' Association have expressed willingness to submit to taxation, while declaring in favour of the imposition of a statutory Cess, on the lines of the Indian Tea Cess.

The Secretary of the U. P. A. S. I. is in communication with Mr. Sanderson, and it is possible that by the time the Annual Meeting opens there may be further communications from him, of a kind to facilitate discussion. As, however, the views of planters in various countries have to be taken, there is little likelihood that this material will assume the form of a definite scheme until long after the close of the meeting.

Madras Planters' Labour Law.

This matter will also come up for discussion. Recent remarks of the Government of Madras have elicited a definite expression of opinion from the Wynaad, but the Secretary of the Nilgiri Planters' Association has asked the Government to wait until the Annual Meeting of the U. P. A. S. I. In a letter to this Association he writes that all questions *re* amendments to the Act have gone through U. P. A. general meetings, and that the present one should do the same. The Government of Madras have been informed of this, and as they have expressed no desire to take action, it is unlikely that they will object to the delay involved by the proposed reference of the question to the Annual Meeting.

MEETINGS OF DISTRICT ASSOCIATIONS.

Shevaroy Planters' Association.

Proceedings of the Quarterly General Meeting held at the Victoria Rooms, Yercaud, on Monday, June 10th, 1907.

PRESENT :—Messrs. H. Dickins, W. Rahm, C. Rahm, J. C. Large, E. C. Large, S. Campbell, C. Dickins, F. D. Short, S. M. Hight, C. G. Lechler, W. W. Hight, and B. Cayley, Chairman.

1. The accounts were passed, showing a balance in hand on the 1st June of Rs.494-3-3.

2 The proceedings of the Quarterly General Meeting held on March 11th, 1907, and of the Committee Meetings, held on April 8th and May 6th, were confirmed.

3. *Delegate to U. P. A. S. I. and his Expenses.*—Resolved that the Honorary Secretary be requested to represent the Association and failing him, Mr. G. Turner, and that the delegate's actual expenses be paid.

4. *Vote of Thanks to Mr. W. I. Lechler.*—Proposed by Mr. S. M. Hight and seconded by Mr. J. C. Large—

“That a very cordial vote of thanks be passed to Mr. W. I. Lechler for the able manner in which he has conducted the affairs of the Association for the past year.” Carried unanimously.

5. *The System of Coffee Passes.*—Proposed by Mr. B. Cayley and seconded by Mr. F. D. Short—

“That a Sub-Committee of 4, consisting of Messrs. S.M. Hight, J. C. Large, C. Dickins and the Honorary Secretary, be appointed to discuss the question of coffee passes, in conjunction with means for the better policing of these hills in crop time.” Carried unanimously.

6. *To popularise Coffee.*—After discussing the various circulars and suggestions on the above subject, including the proposed levying of a cess, it was unanimously resolved—

“That this Association heartily commend this suggestion and is prepared to tax itself and will support the U. P. A. S. I. in any action they take, at the same time instructing its delegate to press for a compulsory cess collected by Government on the lines of the Indian Tea Cess.”

Papers laid on the table—

Notice that the Salem-Yercaud Ghaut-road will be open for traffic from the 14th instant.

U. P. A. S. I. Circulars.

Tea Circulars.

Agricultural Ledger, 1906-07.

Report of Agricultural Stations 1905/06.

(Signed) BERNARD CAYLEY,

Chairman and Honorary Secretary.

The Madras Government have notified the appointment of Mr. Hugh Stevenson Andrewes, Nonsuch Estates, Coonoor, Nilgiri district, as an attesting officer, under Section 4 of the Madras Planters' Labour Act, 1903.

Wynaad Planters' Association.

Meeting of the 12th June, 1907, at Meppadi Club.

PRESENT :—Messrs. Abbott, Atzenwiler, Behr, Hughes, Malcolm, Trollope, Powell, Winterbotham and H. Waddington, Honorary Secretary
Visitors : Messrs. W. E. Glenie and F. Winterbotham.

Mr. S. H. Powell, Jnr. in the chair.

(1). *Proceedings of the last meeting* were confirmed.

(2). *Scientific Officer*.—The Honorary Secretary informed the meeting that the position at present, as far as information received to date went, was, that Coorg, to the extent of 9,500 acres, had promised to support the scheme for 5 years; that the Nilgiris promised Rs 801 for the first, Rs.796 for the second and third, Rs.761 for the fourth and fifth years, which amount it is expected will be increased; the Shevaroy's promise Rs.95 for 5 years; South Mysore Rs.635 for 5 years. With regards to this Association, the position is that Rs.538-7-0 has been promised for 5 years, but it is hoped that this amount will be increased, as replies have not yet been received from all the members.

The Honorary Secretary was instructed to inform the U. P. A. S. I., and to send Circulars to members who have not yet subscribed, asking them to support the scheme.

The Honorary Secretary reported that Mr. T. F. Main, Assistant Inspector General of Agriculture, Government of India, and Mr. H. C. Sampson, Deputy Director of Agriculture, Government of Madras, visited the District and saw estates at Manantodi, Sultans Battery and Vayitri. The Association hopes they will be able to visit the District again in the future.

The Honorary Secretary was requested to give particulars of the experiment made within his knowledge with Sulphate of Copper as applied to Pepper suffering from disease.

(3) *Cannanore Exhibition*.—The Honorary Secretary reported that the Association had been awarded a bronze medal for the exhibit made.—Recorded.

The cost incurred in this matter was Rs.61, payment of which was sanctioned. The Honorary Secretary was instructed to write cordially thanking Mr. J. G. Ferguson for the trouble he took with respect to the Association's exhibit.

(4). *Local Measures*.—Read papers in connection with the proposed introduction of the Madras Measure. The Honorary Secretary was asked to print the figures he had received and worked out for the information of members.

It was resolved to consult merchants, officials and native gentlemen of the District and to ascertain to what extent the Local Government would assist, before deciding what action the Association would take. A committee of Messrs. Trollope, Malcolm and Hughes was appointed to assist the Honorary Secretary.

(5). *Attesting contracts*.—Mr. B. M. Behr has been authorised to witness the execution of labour contracts under Act 1 of 1903—Order No. 578, Judicial, 27th March, 1907—Recorded with satisfaction.

(6). *Police*.—Read letter from the Honorary Secretary to the Superintendent, Police, North Malabar, and his reply. Noted.

(7). *Poodupardi Hotel*.—The Honorary Secretary reported that nothing had been done to date as regards a stable, but that the matter will receive attention. He was instructed to build the stable at the most suitable site between the Hotel Buildings and the Government Road.

Correspondence was read regarding the title deeds, and the Honorary Secretary will report further on the matter at a later meeting.

(8). *Mono-Rail*.—Read Mr. D. Jackson's further letter on this subject. The Association, in view of Mr. Brennan's invention, postponed the matter till it was ascertained if Government would spend the money they are voting on experimenting with this invention, in the Wynaad, or between the Wynaad and the Coast.

(9). *Vayitri Magistrates' Court*.—Read the Honorary Secretary's letter to the Deputy Collector, asking that a covered shed may be erected near the Court for the use of horses during the monsoon. Approved. No reply has yet been received.

(10). *Commission on Money Orders*.—Read the Honorary Secretary's letter to the Chairman of the Madras Trades Association. Approved. The Honorary Secretary was instructed to have the matter included in the Agenda of the U. P. A. S. I. Meeting.

(11). *Acreage Statement*.—The Honorary Secretary was instructed to inform the Secretary, U. P. A. S. I., that the return asked for had already been made—*vide* Proceedings of November 7th, 1906.

Owing to new members and other alterations, the acreage in North and South Wynaad now represented by the members of this Association is 11,400 acres under cultivation. The Honorary Secretary was instructed to advise U. P. A. S. I., accordingly.

(12). *Tytler's Cotton*.—Read letter from M. E. Couchinan, Esq., I. C. S., Director of Agriculture, Madras. The Honorary Secretary was instructed to write asking for a small quantity of seed for experimental purposes and on receipt to distribute to those members who wished to try this variety of cotton.

(13). *Planters' Chronicle*.—Read Mr. Ormerod's letter. Recorded.

(14). *Planters Labour Law, Act I. of 03*.—Read letter from the Hon'ble Mr. H. Bradley, Acting Chief Secretary to Government of Fort St. George, Madras, and the Honorary Secretary's reply, which was approved, and connected general correspondence. Confirmed.

This Association decided in favour of the proposed amendment to Sec. 29 being dropped.

(15). *U. P. A. S. I.*—Read Circulars Nos. 17 to 35 and Honorary Secretary's replies. Approved.

Circular No. 26, Mr. Kirwan's suggestion approved.

(16). *Popularisation of Coffee*.—Read Circulars from U.P.A.S.I.

(17). *Papers on the Table*.—I. T. A. Circulars, 188 and 1 to 8.

Tea Statistics, 66 to 69.

Letter from C. E. Littlewood & Co.

" T. B. Rowe & Co.

" Rowe, White & Co.

Scientific Reports on Agricultural Stations at Palur, Bellary, Hagari, Koilpatti and Attur. Agricultural Ledger, No. 7 of 1906, Agrave.

A vote of thanks to the Chair terminated the proceedings.

(Signed) S. H. POWELL,
Chairman.

(Signed) H. WADDINGTON,
Honorary Secretary.

The Ceylon Tea Traders' Association at Colombo.

PUBLICATION OF TEA PRICES.

A meeting of the Ceylon Tea Traders' Association was held in the Chamber of Commerce, on June 4th, 1907. Mr. Alex. Fairlie, Chairman, presided, and there was a good attendance of members. The meeting was called specially to consider the question of the publication of tea prices, and after discussion and the reading of a letter from a local newspaper—pointing out the impossibility of satisfactorily coping with the difficulties which have arisen, and making the suggestion that the Association should employ a special clerk to attend the sales, work out the averages as expeditiously as possible, and supply them to the newspapers, the Association agreed to approve of the publication of averages only, and that the publication should take place on Thursday instead of Wednesday to afford time for the averages to be prepared.

INDIAN TEA ASSOCIATION, Calcutta.

The following is taken from an abstract of the Proceedings of a meeting of the General Committee on the 11th June 1907 :—

Correspondence with the Indian Tea Association, London.

—Letters from the Secretary, Indian Tea Association, London, dated 17th and 24th May having been previously circulated, were brought up for final consideration and disposal. The principal subjects dealt with in these letters were as follows :—

- (a) *Ocean Freights*.—The Secretary of the Conference Liners has informed the London Association that the task of securing signatures to the new Agreement from all Shippers represented in London has been almost completed, and that Agreements for signature in Calcutta will shortly be sent.
- (b) *Franco-British Exhibition*.—In his letter of 17th May, Sir James Buckingham wrote that the four members of his Association who were on the Indian Executive Committee of this Exhibition had resigned as they could not see their way to recommend to their Committee that a prominent part in the Exhibition should be taken by the Indian Tea Association. The rates that would be payable seem to them to be altogether out of proportion to any advantage that the Association could expect to gain.
- (c) *Scientific Department Publications*.—In connection with a suggestion made to Sir James Buckingham that an arrangement might be made with some publisher in London to have these publications on sale, it was decided to communicate with Messrs. Thacker, Spink & Co. to ascertain whether their London house would be willing to undertake the sale.

Renewal of Tea Cess.—In connection with this matter the replies to the circular issued to all members on 20th April were before the Committee. A considerable number of replies have been received and all favour the proposal that Government should be asked to continue the Cess. The Assam and Surma Valley Branches were also consulted and both have expressed themselves in favour of the continuation. The Tea Cess Committee were to be informed of the result of the General Committee's enquiry.

Education on Tea Gardens.—The General Committee have now submitted to the Government of Eastern Bengal and Assam their views on the Report of Captain Kennedy on the condition of education in the Tea Estates in the province.

They agree with H. H. the Lieutenant-Governor and Captain Kennedy that it is essential to the success of whatever action may be taken that the co-operation of Garden Managers should be obtained, and they urge that any system which would entail the loss to a family of the earnings of the children would meet with opposition on the part of the coolies. The ordinary Government Lower Primary School would accordingly not appear to be suitable and this view—as is evident from the Report—is taken by the Planting community in general.

With regard to the language to be taught in the schools, the General Committee were of opinion that instruction should be given in the coolies' own vernacular. It might certainly be desirable that Bengali or Assamese should be taught as in all probability most of the children will remain in the province but it had to be remembered that not only would the schools be attended by children, but also adult coolies who would be anxious to receive instruction in their own language to allow of their communicating with their people. The question of the language to be taught in particular schools might however,—as suggested by Captain Kennedy—be usefully left to the discretion of the Manager of the Estate, who would naturally be in a position to know what would best suit the majority of his coolies.

Captain Kennedy proposed for the consideration of the planting community three types of school. The majority of the Planters in the Assam Valley ex-

pressed their preference for the unaided school of the type (c), while in the Surma Valley opinion has favoured the private-aided school of the type (b). After consideration the General Committee rather favoured the latter type. While recognising the arguments advanced on behalf of type (c) and agreeing that the schools should be as free as possible of Government supervision, they thought that the State should be prepared to pay the entire cost of the scheme, as suggested by Captain Kennedy.

With reference to the annual examinations to be held by the Inspectors, the General Committee agreed that these should be considered sufficient, unless the Garden Manager should request that his school be regularly inspected: the annual examination should be arranged for a period of the year which will give each individual school a chance of doing itself justice, as it would obviously not give satisfactory results were the visits to certain schools arranged so that they should come soon after a long vacation. A certain amount of revision will require to be done at the beginning of each session as it cannot be expected that, for some time at least, the children will carry over all they have learnt from one session to another. While this would make it advantageous to have the vacation reduced as much as possible the Committee thought that the education offered would be less likely to prove distasteful were a long vacation given during the busy season to allow of the children adding to their parents' income, than if an attempt were made to keep the schools open during that time.

Government have been invited to communicate to the Association their proposals in the matter before taking definite action.

E. B. S. Railway—Transport of Tea.—In a letter of 7th June the Traffic Superintendent of the Eastern Bengal State Railway wrote that he is making similar arrangements to those of last year in regard to the carriage of tea from Northern Bengal and the Dooars to Kidderpur Docks, and under normal conditions the bi-weekly service of tea trains leaving Siliguri and Dhubri every Sunday and Wednesday will arrive at the Docks on Tuesdays and Fridays.

Resignation of Dr. Mann.—In connection with the resignation of Dr. H. H. Mann, the Association's Chief Scientific Officer, and the appointment of Mr. C. M. Hutchinson, the present Assistant Scientific Officer, to succeed him, the Sub-Committee—the Chairman, Vice-Chairman and Mr. T. McMorran—reported that they had met with Mr. Hutchinson and arranged with him the terms on which he will act.

As intimated by circular to all members, the General Committee decided, on receiving Dr. Mann's resignation, to present him with an illuminated address in a suitable casket as an earnest of the high esteem in which he is held by those with whom his duties have brought him in contact. The response to the Committee's invitation for subscriptions was most gratifying, and with the surplus at their disposal, the Committee propose to present Dr. Mann with a piece of plate. It is not yet possible to say what the surplus will be as all the replies have not yet been received. The address and casket were presented to Dr. Mann before the General Committee met; and annexed to these Proceedings will be found an account of the presentation.

PRESENTATION TO DR. H. H. MANN.

The presentation of an illuminated address in a silver casket to Dr. Harold H. Mann took place on 11th June at 12 o'clock.

Mr. G. Pickford, the Chairman of the Indian Tea Association, occupied the Chair and in handing over the address to Dr. Mann, he said:—

"Gentlemen, we meet here to-day to bid farewell to our Scientific Officer and friend, Dr. Mann, and I think I echo the sentiments of us all when I say that we bid him farewell with very mixed feelings. On the one hand we are glad he has secured an appointment which will be congenial to him in every way and in a climate more salubrious than most of the tea districts on this side of India: on the other, we are deeply sensible of the great loss the tea industry is sustaining by his departure. It was felt that we could not allow Dr. Mann

to leave us without some token of our regard more substantial than our good wishes or a simple vote of thanks to him for his services. It was decided therefore to present him with a signed address which I shall now read to Dr. Mann to accept a piece of plate, which may help to keep him in remembrance of us."

Mr. Pickford then read the address, which was as follows:—

To

HAROLD H. MANN, Esq., D. Sc.

DEAR SIR,

We the undersigned have observed with much regret the announcement that you are about to sever your connection with the Indian Tea Association.

We feel that we cannot permit you to leave Calcutta without some expression of our appreciation of the valuable work which you have done for the Indian tea industry during the seven years throughout which you have been in the service of the Association. The need for scientific investigation and research into the many complex problems connected with tea cultivation and manufacture had been acutely felt for some years before your arrival in India. But financial and other considerations had proved to be sufficiently formidable to delay the permanent engagement of a scientific expert. Finally, however, arrangements were made by which those difficulties were overcome: a satisfactory basis upon which a scheme might be founded was agreed upon; and from that point the success of the enterprise depended almost entirely upon the expert engaged to undertake it. That he would have to be not only a scientific investigator, but also an organiser and an administrator was foreseen, for the idea was that he should show the way to the formation of a permanent scientific department. A brief experience of your high attainments and your skilful and business-like methods proved that you fully realised what was needed, and that you clearly understood how the want could be best supplied.

After thoroughly surveying the field of work you formulated a well-thought out scheme to which you have steadily adhered. The value of your own researches soon became apparent, and undoubtedly tended to the removal of those financial difficulties which had hitherto been so serious an obstacle to progress. You quickly recognised that the engagement of a second agricultural chemist and the establishment, in the largest of the tea districts, of an experimental station, where agricultural and chemical experiments might be undertaken, would have to be the first line of development. This project you carried to a successful issue and the Heeleaka experimental Station, under the competent direction of your assistant Mr. C. M. Hutchinson, has already fully proved the wisdom of your decision. Difficult and tedious investigations, which could not have been otherwise attempted, have been thus rendered possible. Work has progressed more rapidly: and the experiments which are now in progress have already shown results of great importance and value to the industry. You next proposed the engagement of a Entomologist who would be able to devote himself to the study of the many pests and blights of the tea plant. Here too as in the previous case, you were conspicuously successful in your object. Not only did you obtain the services of a well-qualified Entomologist but by locating him, with a sufficient staff, in a spot where his advice is most likely to be required, you have established a second experimental station in another of the largest of the tea districts. This branch of the work also is of great consequence, and we are convinced that it is being and will continue to be dealt within a thoroughly efficient manner.

You have thus constituted an organisation which, with its headquarters in Calcutta and its branches in the districts, will, we believe, become a

permanent institution. Moreover, the lines upon which you have founded it are sufficiently elastic to permit of further expansion without any material departure from the main principles which you have laid down; and you have also combined efficiency with economy, inasmuch as the cost of the scheme is moderate, and does not exhibit any tendency to expand beyond reasonable limits. With a record such as this you may fairly claim that the work which you came to India to do has been, if not completed, at least so far finished as to permit you safely to entrust its completion to other hands. But what we have written by no means represents all your varied activities. The series of publications which you instituted almost immediately after your arrival, and which you have consistently maintained ever since, have undoubtedly contributed very materially to your success. To put the results of your researches before tea producers in the everyday language of ordinary life was you quickly realised, one of the most important of your duties. You have succeeded in it far beyond all expectation; your expositions have been always lucid, brief, and above all eminently practical. They have shown the tea planter how to take advantage of your scientific knowledge, and how to translate it into practical work on the tea garden. That was the main object which tea proprietors had in view when they invited your co-operation seven years ago, and we feel that we cannot pay you a higher tribute of praise than to say that you have achieved it completely.

But the work which you have accomplished during your residence in Calcutta has been by no means confined to that sphere to which we have referred. We have observed, with interest and appreciation, your enthusiasm in many philanthropic undertakings. You have laboured strenuously and continuously in the noble cause of ameliorating the condition of the Christian poor of this City; and the efforts which you have made in this direction have won for you the admiration of all who are acquainted with the poverty of those whom you have endeavoured to assist. In you every good cause has found a supporter willing and anxious to devote talents, knowledge, skill and experience to the solution of those distressing social problems which are so painfully conspicuous in this as in every other great city.

In bidding you farewell, and in wishing you every success in your new and important appointment as a Principal of the Agricultural Institute at Poona, we feel that we are losing a warm and a loyal friend, a sound and practical adviser, and an exceptionally highly qualified scientist, who has worked for the tea industry with a whole-hearted devotion which is beyond all praise.

The address is signed by a large number of Calcutta firms and individuals, and there will be added to it the names of subscribers in the Tea districts: it is proposed to have these printed on a sheet of vellum and forwarded to Dr. Mann to be attached to the address.

Dr. Mann then said:—

"GENTLEMEN,—I feel I hardly know how to thank you for the address which your Chairman has just handed to me, and for the very kind words you have used in expressing appreciation of my work since arriving in Calcutta seven years ago. When I look back and see how the progress has been greater than I dared hope to accomplish when I came to India, I feel that there must have been something besides my own work to account for the way in which the scientific department has been found useful and achieved at least in a measure the wishes of those who founded it.

"And I feel that this cause is to be found in the very special conditions of the industry when I came here. The foundation of the scientific department seems to have taken place at the psychological moment when it could be most useful. After a period of considerable prosperity, it was entering on a time of great depression. Difficulties which had been ignored during the preceding years

loomed large before the industry. Methods of dealing with these difficulties which had been easily applicable during the prosperous times became too expensive to use. Tea, which yielded a fair profit in the nineties, became absolutely unprofitable to work by the old methods during the succeeding years. It was, therefore, recognised by an ever increasing body of planters that methods of work based on more and more careful and close scientific investigation of the conditions were alone capable of meeting the difficulty. And under these conditions of readiness for improvement and expectancy of change, everything was made easy for my work, and help of every kind was forthcoming from every quarter. That is, in my mind, very largely the explanation of the success of my department, and I cannot go without expressing my deep gratitude to those who are the leaders of the tea industry both in Calcutta and in the tea districts for their help freely given during the whole of my stay in India.

"And now, gentlemen, what of the future? Is the field exhausted? Are we yet in possession of the best methods of work? Do we know the processes which go on in the growth and preparation of our crop sufficiently well to say that there is no need for further investigation? To every one of these questions I would return an emphatic No. For we must never forget that our crop is unique. The result obtained with other crops, and in other countries, are by no means necessarily applicable to our industry. I am often astonished at the uselessness of the recommendations of first class London chemists when dealing with tea, simply because of the unique character of our crop. And so whether one treats of the character of the soil and its management, of the planting pruning, or plucking of the bushes, of the methods of dealing with the leaf after it has been obtained, we are only at the commencement of knowledge. And so it is a great satisfaction to me that I leave behind a department organised on a liberal enough scale to get continually increasing results year by year, and men of enthusiasm to conduct the investigations which are required. I know that Mr. Hutchinson who takes my place will have all the cordial and constant support which I have had, and that Mr. Antram to whom the investigation of the pests of our crop has been entrusted will likewise be assured of their interest and support. This being so, I feel confident that the department of which I have been the first chief will have a long and exceedingly useful career, and be able to be of real and continued use to a large and an ever increasing industry.

"There is one paragraph in the address you have presented to me which I specially appreciate, namely, that which refers to my activities in Calcutta outside the range of professional duties. I have of course known that the commercial community of which I was the servant did not resent these activities, but to find now that my slight efforts have its emphatic approval, is a pleasure which is the greater because its expression was hardly anticipated.

"One more point, gentlemen, before I sit down. I have spoken of the great anticipations I have for the scientific department with which I have been identified. I leave it, however, simply and solely to enter what I believe to be a larger and greater field. The future of India depends on its industrial development. Its industrial development depends on its technical education. And it is because I profoundly believe the highest scientific attainments and the highest technical skill are attainable by Indians in India that I am going to Poona. I shall do my best to realise, in a small way, the ideal that I have formed, and train men with knowledge, enthusiasm, and skill to tackle the problems of India's greatest industry, and I believe I shall succeed. Whether this be so or no, in this way lies true progress, and in trying to realise it, I know I have the strongest sympathy and support of the commercial community of Calcutta.

"Once more I thank you, gentlemen, more than I can tell, for your kindness during a very happy service, and for this evidence of your appreciation of the little I have been able to do." (*Applause.*)

The meeting then adjourned.

THE DUARS PLANTERS' ASSOCIATION.**The Quality of Tea.**

A large and representative meeting of the Duars Planters' Association was held at the Jalpaiguri Club on Thursday, the 9th May, 1907, at 4-30 p.m. for the purpose of meeting and hearing an address by Dr. Harold H. Mann, D. Sc., Scientific Officer of the Indian Tea Association, on "The Factors which determine the Quality of Tea."

The following is a short précis of the address:—

The quality of tea derived from particular tracts, or grown at particular seasons, has been attributed to the most various causes. Some years ago elevation or latitude was said to have the principal effect, and it was supposed that quality would almost of necessity be obtained on high level gardens. Others have attributed the high quality of certain districts to their regular and sufficient rainfall, to the soil conditions special to certain localities, to the effect of special "jâts" of tea, to facilities for manufacture or to various other causes. It is probable that all these have their effect, but none is so supremely important that one can say it is impossible to produce good tea in its absence. His own opinion was that the recognition of this fact was of great importance in the Duars, which possesses a better quality soil than any other on the plains of India, with the possible exception of Upper Assam.

In connection with the influence of soil, he said that at the end of seven years' study of the question, he was convinced of the necessity of two conditions for the production of high grade tea. Of these the first was the presence of a fairly large root range and the second a regular balance of constituents in the soil. The absence of the former seemed to condemn low-lying bheel or clay flats to produce inferior tea: the absence of the latter accounted for the low quality obtainable from peat and similar soils. The root range in soils could be increased by many means, most of which were well known, such as the provision of deep narrow drains, and the like. The most successful recent method was that of trenching from 18 inches to two feet between alternate rows, and putting bulky materials like green jungle, light prunings, cattle manure, and bheel soil at the bottom of these trenches. The use of the "boga medcloa" or "arahar dhal" plant as combined green manures and material for trenching was suggested, and it was indicated that part of the benefit now recognised as accruing from the use of the "sau" tree was probably due to its action in increasing the root range.

Passing to consider the importance of a proper balance of soil constituents in the soil, Dr. Mann said it might be taken that in the Duars phosphoric acid, potash, and the other mineral constituents of the soil were usually present in large enough amount, and that any deficiency and excess of these latter appeared to be injurious. Large quantities of organic and nitrogenous manures might thus lead to a loss of quality. Most recent investigation seemed to indicate that the quantities of manures applied in the past were greater than was wise or necessary, and that, from the point of view of quality, small dressings often repeated were much to be preferred. Thus, 5 maunds of oilcake per annum had given better results at Heeleaka than 15 maunds applied once in three years, and certainly one need have no fear of risking quality with the former amount. Dr. Mann went on to point out that slow growth, as imagined by some, did not necessarily mean high quality, but that what was wanted was normal growth, in which all the materials were supplied to the plant in sufficient amount, without an excess of those leading to luxuriance alone.

Dr. Mann went on then to consider the effect of pruning and plucking on quality. With regard to the latter he said that his analysis of the leaf from the same bush plucked equally fine, but "close" in the one case and at the end of a long shoot on the other had confirmed completely the generally-accepted view that the latter was much inferior in those constituents required for making good tea. He urged the importance of allowing good growth on the bushes in the early part of the year even at the risk of many of the shoots going "banghi" and then, as soon as one dared according to the

special conditions of each garden, pluck close during the remainder of the season. He described the Dibrugarh system of "clean" plucking, that is to say, plucking everything on the bushes at each round after, say, the early part of July (the rounds not being, however, more frequent than one in ten or eleven days), and thought he doubted its applicability to the Duars, yet he would be glad to see experiments made on the subject.

Passing on to the effect of manufacture on quality, Dr. Mann stated that in no department of the industry had so much increase in knowledge taken place in recent years as in that of understanding what was going on during the conversion of leaf into tea. He referred to his investigations in withering, in fermentation and in firing. In the first of these processes, the time factor seemed the most important, and no method of conducting the process had as yet been devised which would give the best tea without a time, varying from 18 to 24 hours according to the temperature, having elapsed between plucking and rolling. This did not condemn the houses fitted with fans which are so common in the Duars, but simply showed that their proper sphere was not to hasten withering but to control the conditions under which it took place.

To get the best conditions of fermentation, if liquor was the principal character aimed at in the finished tea, there must be (1) freedom from microbes, (2) a saturated damp atmosphere, (3) a temperature of from 75 deg. to 84 deg. F., (4) a thoroughly good aeration in the fermenting house, (5) a time of not less than four to five hours at the above temperature. If the tea was being manufactured with flavour chiefly in view, the time would have to be reduced to 3½ hours or less, the importance of the absence of microbes was increased, while the temperature was of less importance.

Under firing, Dr. Mann stated that his investigations indicated that there seemed to be almost equal objection to a slow long-continued firing and to firing at a high temperature. If the firing was long continued, and especially if the half fired tea was allowed to cool and lie about when half fired, both thickness of liquor and flavour were lost; if it was carried out at a too high temperature, there was a very considerable loss of flavour. The ideal would be to fire quickly at a fairly low temperature, say never exceeding 180 degrees F. on leaf itself at any part of the manufacture, but with existing machines it does not seem possible to reach the ideal conditions. It is probable that long continued firing (stewing) did more harm than more rapid drying at a higher temperature.

In conclusion Dr. Mann said that the time had not come at which it was possible to describe definitely the whole of the factors which influence quality in tea, but every year seemed to bring nearer the time when such description would be possible. In the meantime, the Duars seemed specially favoured in this respect so far as natural conditions go, and those working in that district ought not to be content to produce anything lower than the best obtainable on the plains of India.

An interesting discussion followed, and many questions were asked by the members present and were replied to by Dr. Mann.

The Chairman then thanked Dr. Mann on behalf of the members present for his very interesting and instructive address; addresses such as that they had just heard and the discussion that followed were, he said, invaluable to practical planters, and he wished they could have more of them. They had listened with very great interest to the scientific explanations adduced by Dr. Mann of the factors that go to determine the quality of tea; the results of Dr. Mann's investigations and conclusions had given them food for careful thought, and he had no doubt that those present would go back to their factories with renewed determination to study the art of manufacture; to put in practice and test the theories advanced by Dr. Mann and endeavour to get the best possible quality out of their leaf.

Dr. Mann then thanked the Chairman and gentlemen present for their kind welcome and reception. He said it was a great pleasure to him to have had the opportunity of meeting so many Duars men collectively; he took a very great interest in their district.

OFFICIAL PAPERS.

Production of Tea in India, 1906.

The following is extracted from a very lengthy report issued by the Commercial Intelligence Department, India, under date, Calcutta, June 4, 1907 :—

[NOTE.—The figures of area and production in this table are for calendar years, and the figures for exports from India refer to the official years beginning on the 1st of April and ending on the 31st of March. The figures relating to exports from China and Ceylon are for calendar years. Burma is treated in all these tables as a foreign country, that is to say, exports to Burma are dealt with in the same way as exports to the Straits or to Siam, and a special paragraph has been devoted to the tea trade of Burma.]

The area reported in each year since 1835 is given in Appendix I attached to this note

The figures given in that statement are for the most part those reported by planters. In Eastern Bengal and Assam, estimates are prepared by the local officers for those gardens for which returns are not supplied by the owners and managers (35 out of 930, in 1906). For Southern India, where the returns received are extremely imperfect, a rough estimate has been made of the unreported area in the British districts of Madras. It is probable that the returns from Travancore are also very inaccurate, but it is impossible to make any estimate of the deficiency. Including the estimated area in Madras, the total area under tea in 1905 and 1906 was divided between the different provinces as follows :—

Table No. 1.—Area in Acres.

	1905.	1906.
Eastern Bengal and Assam—		
Brahmaputra Valley	207,276	207,923
Surma Valley	131,930	132,558
Jalpaiguri and Alipur Duar	78,765	78,982
Chittagong	4,864	4,365
Total Eastern Bengal and Assam	422,335	423,828
Bengal—		
Darjeeling	50,618	48,867
Chota Nagpur	2,406	2,352
Total Bengal	53,024	51,219
United Provinces	7,934	7,997
Punjab	9,412	9,425
Total Northern India	17,346	17,422
Madras { Reported	7,838	10,171
{ Estimated	5,706	3,811
Travancore	25,245	25,857
Total Southern India	38,789	39,839
GRAND TOTAL	531,494	531,808

Out of the total area of 528,497 acres for which either returns or complete estimates are received, 507,180 acres were reported as being under mature plants, and 21,367 acres as being under immature plants.

In the years 1903 to 1905, an attempt was made to check the accuracy of the area reported by asking for a return of the new lands planted and the old cultivation abandoned in each year. It was found, however, that the figures obtained in this way were not reliable, and could not be used for the purpose intended. These columns have therefore been omitted from Appendix II.

In Eastern Bengal and Assam, 930 plantations are reported to have a total area of 423,828 acres under tea, the average area of the plantations being about 456 acres. In Bengal 291 acres was the average for 176 plantations, and in

Travancore the average of 69 plantations was 875 acres. In Madras and the United Provinces, the average area of a plantation is much smaller, being about 117 acres only. In the Punjab, where natives grow tea on a very small scale, the average area of the plantations is about 8 acres. These figures relate only to tea-bearing areas and do not include the area taken up by planters, but not under tea cultivation.

Production.

The reported production of tea in each year since 1885 is given in Appendix I. . . .

The increase in the quantity produced has progressed much more rapidly than the increase in the area under cultivation, for while the area has increased since 1885 by 86 per cent., the increase in production has been 286 per cent. The following statement shows the ratio of increase in area and production since 1885, taking the figures of that year in each case as 100, and also the actual increase or decrease in the number of pounds of tea produced each year, as compared with the production of the preceding year:—

Table No. 3—Variations in Area and Production.

			Area.	Quantity produced.	Actual increase annually in lbs.
1885	..	..	100	100	..
1886	..	..	105	115	10,915,114
1887	..	..	110	129	9,826,760
1888	..	..	114	140	7,541,388
1889	..	..	118	150	7,239,681
1890	..	..	121	157	5,000,071
1891	..	..	127	173	11,785,893
1892	..	..	132	170	—1,930,346
1893	..	..	139	185	10,144,557
1894	..	..	141	188	2,552,708
1895	..	..	146	200	8,541,686
1896	..	..	152	218	12,998,574
1897	..	..	165	215	—2,617,213
1898	..	..	180	220	3,744,558
1899	..	..	181	254	24,277,983
1900	..	..	183	276	15,660,558
1901	..	..	184	267	—6,147,749
1902	..	..	184	263	—2,714,083
1903	..	..	185	292	20,448,151
1904	..	..	184	309	12,528,592
1905	..	..	185	309	—230,944
1906	..	..	186	336	19,342,045

The total production in 1906 was reported as 240,411,266 lbs. divided between the different parts of India as follows:—

Assam	Eastern Bengal.	Bengal.	Northern India.	Southern India.
162,468,034.	44,602,885.	15,531,692.	3,527,863.	14,280,792.

The accuracy of these figures has been tested so far as possible by the statistics of tea despatched by rail and river from the producing districts and also to some extent by a comparison with figures kindly supplied by firms in Calcutta that act as Agents for Tea Estates. The comparison with the rail and river-borne trade figures is subject to the following considerations: (1) Tea produced in one district may appear as an export in the traffic statistics of another district, *e. g.*, tea produced in Jalpaiguri and sent by road to, say, Dhubri and then shipped by steamer to Calcutta would appear as being despatched from Assam. For this purpose it is necessary to take the figures of Jalpaiguri, Darjeeling, and Assam together. (2) A change in the quantity of tea held in stock at the gardens on the 31st of March will affect the traffic statistics, but not the figures of production. In order to minimise the risk of error on this account, it is necessary to take the figures for three years together. (3) The

quantity of tea locally consumed whether it passes into consumption directly from the gardens or not, must be excluded from the figures of production in order to make them comparable with statistics of tea despatched from the producing districts; and there should be a small balance left over from the reported production, after deducting net exports, in order to supply local consumption. But as a matter of fact the reported despatches of tea from Assam, Darjeeling, and Jalpaiguri together exceed the reported production by over five million pounds in the last three years for which complete figures are available, *viz.*, 1903-5. The greater part of this discrepancy, over three million pounds, occurs in the year 1903, and it is noticeable that the total export from British India in that year exceeded the total reported production by over a million pounds. There is therefore some ground for supposing that in 1903, at all events the production was under-estimated. For the last two years, however, the reported production has been checked by information received from Agents in Calcutta, and there seems no reason to doubt that the reported production at least of those gardens for which returns are received from the Managers is accurate. It is unlikely that the discrepancy is due to mere errors in compilation, for in that case the variation would not be so constant as appears to be the case. It is possible that the production of those gardens for which returns are not received is under-estimated, and it is also possible that the net weight of tea despatched by rail is exaggerated. This would occur if the allowance made for the weight of chests in calculating net weight from gross weight were insufficient. On the whole, however, the figures of production for the most important producing districts in India, *i.e.*, Bengal and Assam, appear to be substantially correct, and the error, if any, does not exceed one per cent.

In Southern India the case is somewhat different, for the trade figures show that the reported production is constantly less than the amount exported by sea. The figures of area and production alike are known to be defective, and it may be assumed that in recent years the estimated production in Southern India falls short of the actual crop by about a million pounds a year on the average. In other parts of India the figures of rail-borne trade do not throw much light on the reported production. Taking the Indian crop as a whole, it appears that the estimates of the reported figures of production in recent years are not more than the actual crop. They may be from one to two per cent. below it.

The production per acre under matured plants of manufactured tea (green and black) reported for 1906 was as follows:—

	lbs.		lbs.		lbs.
Cachar	.. 542	Jalpaiguri	.. 569	Garhwál	.. 82
Sylhet	.. 515	Chittagong	.. 316	Dehra Dún	.. 382
Goálpára	.. 298	Chittagong Hill Tracts	239	Kangra	.. 132
Kamrúp	.. 205	Darjeeling	.. 317	Simla	.. ..
Darraig	.. 515	Hazaribagh	.. 4	Nilgiris	.. 435
Nowgong	.. 418	Ranchi	.. 128	Malabar	.. 271
Sibságar	.. 404	Almora	.. 162	Coimbatore	.. 331
Lakhimpur	.. 572	Naini Tal	.. 59	Travancore	.. 452

Production of Green Tea.

The following table shows the reported production of green tea in each of the last three years and the recorded exports by sea and by land:—

	Reported Production.		
	1904.	1905.	1906.
	lbs.	lbs.	lbs.
Surma Valley	.. 2,423,165	1,881,181	1,442,069
Other parts of Bengal and Assam	.. 551,728	731,563	278,812
Total Bengal and Assam	.. 2,974,893	2,612,744	1,720,881
Northern India	.. 1,857,074	1,856,106	1,257,510
Southern India	.. 89,015	30,000	606,803
TOTAL REPORTED PRODUCTION	.. 4,870,982	3,998,850	3,587,194

<i>Exports.</i>			
	1904. lbs.	1905. lbs.	1906. lbs.
From Calcutta and Chittagong ..	1,578,148	1,703,503	1,808,354
By land and from Sind by sea ..	1,887,282	1,165,388	1,458,240
From Madras by sea ..	1,402	..	46,393
TOTAL EXPORTS ..	2,966,777	2,868,891	2,812,987
Bounties have been paid on the following quantities :—			
	1904. lbs.	1905. lbs.	1906. lbs.
Surma Valley ..	1,462,676	1,900,931	1,298,392
Other parts of Assam and Bengal ..	52,400	49,126	165,228
Total Assam and Bengal ..	1,515,076	1,950,057	1,458,620
Northern India ..	121,028	9,450	39,350
Southern India ..	485	...	...
Not specified ..	182,664	...	...
TOTAL BOUNTIES PAID..	1,819,253	1,959,507	1,497,970

Almost all the bounty goes to green tea produced in the Surma Valley which is shipped from Calcutta and Chittagong. But a little green tea from these districts and from other districts in Assam and Bengal is sent across the North-Western Frontier. The greater part of the land trade in green tea however is supplied by the gardens of Northern India, particularly those of the Kangra Valley.

The figures of reported production are not reliable, as black tea has in many cases been erroneously returned by planters as green. In 1904 the production of green tea in the Surma Valley was overstated and the production in other parts of Bengal and Assam was overstated in 1904 and 1905. The figures for these districts in 1906 are believed to be correct, but no explanation has been received of the great increase in Southern India. This is not confirmed by the export figures and must be regarded as doubtful. In all probability the production of green tea in India has not largely exceeded 3 million lbs. in any of the three years.

The chief foreign markets are the United Kingdom and Russia for exports by sea, and Afghanistan and Kashmir for exports by land.

Exports.

Table No. 4 shows the quantity (in pounds) of Indian tea exported direct to each country during the last five years. The destinations given are those declared on export, and owing to the use of optional Bills of Lading it must be assumed that the true quantities differed in some cases from those stated. The result is that the figures of export from India do not agree with the figures of import into various countries, *e.g.*, the United Kingdom. But the discrepancies tend to balance one another in a series of years. Thus, in the seventeen years, 1890-1906, the recorded exports from India to the United Kingdom were 2,396 million pounds and the recorded imports into the United Kingdom from India were 2,383 million pounds. The net difference is therefore considerably less than 1 per cent. The most striking features of this year's trade are as follows. A large increase of ten million pounds in direct shipments to the United Kingdom follows a decrease in the shipments of the two previous years. But in spite of this, the proportion of the total crop sent direct to the United Kingdom has again fallen from 77 to 74.5 per cent. Direct exports to Russia have increased by over 3½ million pounds or nearly 40 per cent. Direct shipments to North America have received a set back, as Canada and the United States took ¼ million pounds less than in the previous year. Exports to Ceylon and the treaty ports of China were doubled. There is an increase of 1½ million pounds in export to Australia and New Zealand.

* Includes an estimate for exports by land for eight months.

Table No. 6 shows the total of (a) Indian, (b) Ceylon tea exported direct by sea and reported from the United Kingdom to each principal Foreign country in each of the last three calendar years:—

Table No. 6.

	INDIAN.			CEYLON.		
	1904. lbs.	1905. lbs.	1906. lbs.	1904 lbs.	1905. lbs.	1906. lbs.
Russia	12,407,896	13,921,436	20,841,128	14,052,635	15,321,292	20,280,461
Other						
European	4,833,993	3,950,882	7,239,744	5,153,917	5,011,631	5,981,065
Countries)						
United						
States of	3,741,495	2,979,509	3,742,017	8,499,484	7,716,104	8,974,038
America)						
Canada	13,421,916	14,885,746	17,134,329	7,879,690	8,959,414	10,122,991
Australia	7,002,026	6,225,981	9,632,644*	20,059,181	20,842,743	19,440,402*
New Zealand	760,089	577,584	547,852*	3,680,212	3,974,002	4,071,051*
Other Foreign						
Countries	14,775,533	15,932,095	18,816,813	8,417,521	13,025,802	14,574,563
TOTAL...	56,942,948	58,423,233	77,954,527	67,742,640	74,350,988	83,414,571

Throughout the last five years the percentage of the Indian tea crop sent to the United Kingdom has steadily diminished, while direct exports to other countries have increased in the same proportion. The figures are as follows:—

Table No. 7.—Proportion per cent. to total exports by sea and by land of exports consigned to the countries named.

	To the United Kingdom.	To Europe excluding United Kingdom.	To Africa.	To America.	To Asia.	To Australia.	By land.
1902-03 ..	83.4	2.9	0.3	4.5	4.0	3.2	1.1
1903-04 ..	81.4	2.6	0.2	4.8	6.5	3.5	1.0
1904-05 ..	78.3	5.1	0.3	6.9	5.2	3.1	1.1
1905-06 ..	77.0	5.2	0.3	7.9	4.9	3.6	1.1
1906-07 ..	74.5	6.8	0.6	6.9	6.3	4.0	0.9

The following statement shows the quantity in pounds of Indian tea shipped from Calcutta, Chittagong, Bombay and Karachi, and Southern Indian ports, respectively, during each of the last five years, and the percentage which shipments from each place bear to the total exports from India is stated in brackets. In 1906-07 Calcutta despatched a larger share of the tea crop than in either of the two preceding years, while the share of Chittagong was less.

Table No. 8.

QUANTITY (IN LBS.) OF INDIAN TEA SHIPPED.

	From Calcutta.	From Chittagong.	From Bombay and Karachi.	From South Indian Ports, including Travancore.
1902-3..	151,292,295† (83.1)	19,998,831 (11.0)	3,966,922 (2.2)	6,785,807 (3.7)
1903-4..	168,205,822† (80.9)	27,359,891 (13.2)	3,232,603 (1.5)	9,146,568 (4.4)
1904-5..	159,831,600 (75.0)	38,714,088 (18.2)	3,256,927 (1.5)	11,223,304 (5.3)
1905-6..	158,783,013 (73.9)	41,597,585 (19.3)	1,750,226 (0.8)	12,843,236 (6.0)
1906-7..	176,545,021 (75.3)	42,076,245 (18.0)	1,699,899 (0.7)	14,110,650 (6.0)

* Direct exports only.

† Includes a small quantity exported from Chittagong to Burma.

Table No. 9 shows the reported exports of tea by sea and land from India, China, and Ceylon for each of the last ten years. The figures in brackets show the ratio of increase or decrease in each year as compared with 1896, the figures for that year being taken as 100 in each case.

Table No. 9.—Total exports (in lbs.) of tea by sea and by land to Foreign Countries from India, China, and Ceylon.

				CHINA.			
India*		Ceylon.		Black & Green.		Brick, Tablet and Dust.	
1896..	150,600,201 [100]	110,095,194 [100]		161,538,933 [100]		78,567,333 [100]	
1897..	152,515,400 [101]	114,466,318 [104]		137,097,600 [85]		75,781,867 [98]	
1898..	158,720,555 [105]	122,395,518 [111]		147,987,200 [92]		68,017,067 [87]	
1899..	177,371,238 [118]	129,661,908 [118]		153,669,067 [95]		71,205,067 [91]	
1900..	192,546,739 [128]	149,264,603 [136]		144,270,933 [90]		52,190,667 [66]	
1901..	182,874,493 [121]	144,275,608 [131]		119,390,000 [74]		42,740,533 [54]	
1902..	184,026,823 [122]	150,829,707 [137]		128,226,933 [79]		78,512,400 [100]	
1903..	209,935,460 [139]	149,227,236 [135]		140,607,867 [88]		83,813,600 [107]	
1904..	214,788,839 [143]	157,929,333 [143]		132,366,933 [83]		61,493,733 [78]	
1905..	217,297,452 [144]	170,183,558 [155]		112,152,533 [69]		70,784,267 [91]	
1906..	236,731,623 [157]	170,527,146 [155]		108,864,534 [67]		79,506,133 [101]	

The quantities of each kind of tea entered for home consumption in the United Kingdom in each of the last five years and the consumption per head of the population were as follows:—

Indian tea.		Ceylon tea.		China tea.		Tea of other countries.		CONSUMPTION PER HEAD.	
lbs.		lbs.		lbs.		lbs.		Indian tea. All tea.	
1902..	148,727,839	85,540,877		11,531,830		8,639,642		3.55	6.08
1903..	150,858,605	78,535,035		14,963,825		11,140,683		3.57	6.05
1904..	155,196,596	79,445,591		11,048,116		10,969,965		3.64	6.02
1905..	150,530,446	89,385,901		6,658,966		12,513,278		3.51	6.03
1906..	159,210,992	91,941,425		5,671,121		13,276,357		3.67	6.23

Production and Exports of other Foreign Countries.

The latest official figures for the production and exports of tea of other foreign countries are as follows:—

JAPAN.			JAVA.		NATAL.	
Production.	Exports.†	Imports	Total	Production.	Exports.	
lbs.	lbs.	into U. K.	exports.	lbs.	lbs.	
1902 ..	56,110,208	42,469,608	....	16,911,166	1,796,230	....
1903 ..	55,588,030	47,654,800	....	22,138,187	1,761,091	1,386
1904 ..	53,281,046	46,297,236	11,616,927	25,375,691	2,006,367	348
1905 ..	....	37,708,343	11,125,725	25,772,564	1,633,178	....
1906 ..	....	39,778,193	12,726,518	.....	.....	2,057

Foreign Tea In India.

The imports of foreign tea into India in 1906-07 were $2\frac{1}{4}$ million lbs., more than a million lbs. less than in 1905-06. Rather more than half was re-exported as foreign tea chiefly from Bombay to Persia, Arabia, and Turkey in Asia by sea, and by land to Afghanistan, leaving just over a million lbs. for consumption in India. Part of this no doubt was used for blending with Indian teas, and the blend when exported was perhaps treated as Indian produce in the Customs declarations.

Consumption of Tea In India.

There are no figures dealing directly with the consumption of tea in India. But it is possible to frame an estimate by ascertaining the average annual

* For official year from 1st April to 31st March.

† Mostly green tea to United States of America.

amount of tea, Indian and foreign, which becomes available for consumption in the country.

As regards *Indian* tea, if the total exports by land and sea are deducted from the total recorded production, the average balance of a series of years represents the average quantity left for consumption in India. Table No. 11 shows the reported production of Indian tea in the last ten years, the total exports, and the balance available for consumption. The average balance of the last three years is 4.65 million pounds. The correctness of this figure depends on the accuracy of the reports of production, and it has been explained in a previous paragraph that the production in Southern India is underestimated by about a million pounds on the average. This amount may, therefore, be added to the 4.65 million pounds mentioned above. It is possible that there is a similar deficiency in the figures of production for Assam and Bengal, but this is not so certain.

Foreign tea is dealt with in the preceding paragraph, which shows that, on the average of the last three years, an annual balance of 1.59 million lbs. of tea is left for consumption in India. It is immaterial as regards the question of consumption whether any part of this, after being blended with Indian tea, is re-exported as Indian produce or not. For if any quantity of foreign tea is classed in the export statistics as Indian tea, the total of Indian tea exported must be reduced by a corresponding amount.

In these three years, therefore, the amount of tea (Indian and Foreign) available for consumption in India on the average may be put at not less than $4.65 + 1 + 1.59 = 7.24$ million pounds.

An estimate of the consumption of tea in India which appeared in the *Indian Trade Journal* of 12th July, 1906, put the consumption of rather less than half the total population at 4.2 million lbs., or .033 lb. per head. The consumption of the whole population reckoned on this basis would be 9.8 million pounds.

Capital employed.

According to the returns of the Registrar of Indian Joint Stock Companies and the published accounts of the Companies registered in London, the capital of joint stock companies engaged in the production of tea amounts to nearly 22 crores (£14½ millions), viz.:—

		Rs
Companies registered in India	...	3,41,82,985
Companies registered in London	...	18,39,30,135

The total amount of this capital divided by the tea-bearing area gives an average capital of Rs 412 (£27) per acre. The true capital value, however, must be slightly larger, since the amount of private capital engaged in the industry is unknown, and the tea-bearing area includes private property as well as Companies' gardens.

Particulars are available concerning the present position of 71 companies registered in India, which have an aggregate paid-up capital of 228 lakhs. The total dividends declared by these companies amounted to 6 per cent. in 1904 and 1905 on the total capital of 228 lakhs, which includes the capital of several companies that declared no dividend. Fifty-three of these companies have declared dividends for 1906, amounting to 6.3 per cent. on their aggregate capital. The aggregate dividend declared by the same 53 companies in 1905, was 5.6 per cent.

The total dividends declared by 68 companies in England, having an aggregate capital of 1,480 lakhs, amounted to 3.8 per cent. on 1,480 lakhs in 1904, and to 4 per cent. in 1905.

Persons employed.

The number of persons employed in the industry in 1906 is returned at 489,087 permanently employed and 81,626 temporarily employed, making a total of 570,713 persons or about one person to the acre. Compared with the return of the previous year, there is an addition of 22,130 permanent employes

and a reduction of 2,158 in the number of temporary hands. In South India the work is sometimes done by contract, and in this case no record of the labour employed is available.

Tea in Burma.

There were 1,498 acres under tea in the northern districts of Burma in 1906, divided between 1,521 plantations. The production of these small gardens was almost entirely used for the manufacture of wet pickled tea (*letpetso*) which is eaten as a condiment, and only 3,910 lbs. of black leaf tea were made. Imports of leaf tea into Burma amounted to about 8½ million lbs.

Duty on Tea.

The following table shows the customs duties levied on tea in the principal countries of the world as they stood on the 1st April, 1907. The principal changes made in the course of the year were a reduction of 1d. in the English duty with effect from the 14th of May, 1906, and the substitution of a tariff value for a total *ad valorem* duty of 45 per cent. in the case of black tea imported into Japan.

		Per lb.		
		Rs.	A.	P.
Russia	(1) Imported by the European Frontiers—			
	<i>Black Tea, black or green</i>	..	0	8 0
	<i>Teas of Ceylon or Indian origin</i>	..	1	7 3
	<i>All other kinds</i>	...	1	6 3
	(2) Imported across the frontier of the Semirye- chensk Province of the Steppes, Irkutsk or the Amur:—			
	<i>Black bohea, flower green and yellow</i>	..	1	2 0
	(3) Imported through the Customs House of Irkutsk or westward across the frontier of Siberia or of the Steppes or the Semirye- chensk:—			
	<i>Tea in bricks</i>	...	0	2 7
	<i>Tea in tablets of the Russian manufacture</i>	...	0	10 7
	For consumption as tea	...	0	1 4
Germany	For the manufacture of theine	...	Free.	
France	Imported directly from a country out of Europe	...	0	9 0
	Imported from European entrepôts	...	0	11 9
Spain	...	...	0	6 6
	Tea imported from European country or shipped in a European Port will pay an additional duty of	...	0	0 2
Japan	Black tea	...	0	3 9
	Black tea dust	...	0	6 0
	Other tea	...	0	6 0
Persia	White tea	...	0	7 0
	All other tea	...	0	4 3
		Per lb.		
		Rs.	A.	P.
United Kingdom	...	0	5	0
Sweden	British East Africa			
	<i>ad valorem</i> ...	10 per cent.		
Norway	British Colonies and terri- tories in South Africa	...	0	4 0
	Canada	...	Free.	
Denmark	United States	...	Free.	
Holland	Argentine Republic	...	0	4 4
Belgium	Chile	...	0	6 6
Portugal	Ceylon	...	0	4 0
Italy	China	...	5 per cent.	
Austria-Hungary	Straits Settlements	...	Free.	
Greece	Australia	...	Free.	
Turkey	New Zealand	...	Free.	
Egypt	<i>ad valorem</i> ...	8 per cent.		

Fertilizers.

In the course of his seventh annual report (for the year 1905-06) the Agricultural Chemist to the Government of Mysore refers to various analyses of oil cakes and other fertilizers and makes the following remarks as to certain manurial preparations:—

Prawn Skins.—The only sample received this year is badly adulterated with sand, being mixed with nearly its own weight of that material. The only other sample analysed in this Laboratory was received some years ago. It had 4.47 per cent. sand and was fully 50 per cent. more valuable than the sample analysed this year. Evidently the agents offering the prawn skins (of which I received a sample this year) considered the fertilizer to be very much more valuable than it really is. At any rate they charged per unit of nitrogen and phosphoric acid more than double the price in this fertilizer than these ingredients can be bought for in bone meal. These prawn skins were said to contain 7 per cent. of nitrogen and 7 per cent. of phosphoric acid, quantities very much above those actually found in the sample received.

Bone Meal.—This is undoubtedly a fertilizer in which both the nitrogen and the phosphoric acid are sold at a very low price per unit in India. It has always been admitted that the nitrogen in bone meal is in an available form. But as to the value of the phosphoric acid contained in this fertilizer, there is some difference of opinion. Experiments conducted by some of the leading German Agricultural Chemists place the value at little above that of mineral phosphates, which are, when in the undissolved condition, practically valueless as fertilizers, while the experiments conducted in Japan give it a very much higher value. Observations made in India also differ materially. As stated in another part of this report . . . a sample of coarse bone meal applied on the surface under a covering of leaves disappeared in less than a year. While another sample of coarse bone meal buried deeply was dug up after 28 years. The composition of the latter . . . is given. As will be noticed, this sample still contains nearly half its percentage of nitrogen. Evidently neither the phosphoric acid nor the nitrogen is readily available when the bone is buried deeply in the soil, and the whole question needs further investigation. This investigation is all the more desirable, as the ingredients of plant food contained in bone can be bought comparatively cheaply in that form, and as owing to the high percentage of iron and the very low percentage of lime in the Mysore soils, superphosphates may not give relatively as good results in Mysore as have been obtained elsewhere.

Bone Char.—This substance, which is a waste product from the sugar refineries, is generally considered to be very inert. It has been tried on coffee estates and has been dug up (though originally it was buried only a few inches) after seven or eight years in very much the same condition as it was put in. Even at Rs. 1.7-1 per unit, or even half that price, it is not likely to prove a valuable fertilizer. In Europe it is now principally used for making superphosphates. But to use it at a profit for this purpose, necessitates a cheap supply of sulphuric acid.

Ammonium Salts and Nitrates.—It is only necessary to glance at the price per unit of nitrogen. . . . to realise the great variations which exist in the prices charged for these "artificial" fertilizers. The chief reason for this is no doubt that, apart from saltpetre (in which both the nitrogen and potash are quoted at a low price) there is as yet little demand for these fertilizers; and relatively high prices are charged by some firms to compensate them for having to keep these fertilizers in stock a considerable time. . . . In calculating the price per unit of potash and nitrogen in saltpetres, the nitrogen has been considered to be three and a half times more valuable than the potash.

Basic Slag is a by-product in the manufacture of steel which, although it contains a high percentage of lime, is comparatively easily available and is ranked next to superphosphates in this respect. It is free from the objections

which may possibly be raised against superphosphates, that owing to the high percentage of iron in the Mysore soils, there may be some danger of the phosphoric acid of superphosphates becoming rapidly insoluble, and that owing to the acidity of superphosphates, they may have some injurious actions on soils so poor in lime as those of Mysore. Whether superphosphates actually have these drawbacks, has not yet been determined. But whether they exist or not so far as superphosphates are concerned, they certainly do not apply to basic slag. In basic slag the fineness of the material is a very important factor. The more finely it is ground, other things being equal, the more readily available it is.

Superphosphates.—... All the samples presented a good appearance. ... No doubt when sulphuric acid can be produced cheaply enough in India, superphosphates will also be manufactured on a much larger scale than at present.

Bone Superphosphates.—The last four samples on the list were prepared by treating bone meal with various quantities of acid sulphate of potash in solution, as recommended in para. 63, page 46 of my report of last year. These fertilizers contain nitrogen, potash and phosphoric acid and are, therefore, in one sense of the word, complete fertilizers. They are not, however, well balanced, as the percentage of nitrogen is too small, being on an average only about one-sixth that of the phosphoric acid. The potash varies with the quantity of acid sulphate used. A certain proportion of the phosphoric acid in the bone is made water-soluble, which of course increases its value. But it requires practical tests in the Pot-culture house to determine if the acid nature of the bisulphate of potash has been sufficiently reduced by this treatment to make it harmless. If such is not the case, the reaction which has begun by simply allowing the bones to remain in contact with the solution of acid sulphate of potash could, no doubt, be increased by heating the mixture, and possibly some practical way may be devised for doing this.

Potash Fertilizers.—Among these should be included ashes and *saltpetre*. ... The figures given ... show that even if the nitrogen is disregarded, the potash is no more expensive [in *saltpetre*] than in the form of muriate or sulphate of potash.

Kainites.—In these the unit of potash is very expensive, running up to Rs.5-13-5 per unit, a price more than 50% above that at which potash could be bought in other fertilizers. But even at that high figure, there is little profit in it for the firm which imported that particular shipment on account of the very limited sales they have had. But it is absolutely useless to import Kainite or any other fertilizer if after it arrives such a prohibitive price has to be charged for it that it would be foolish for any one to buy it.

Sulphate of Potash.—Included under this head is a fertilizer just placed on the market called "Stanes' Sulphate of Potash." It is sold at a price decidedly lower than the imported sulphate, and if the supply is constant and the quality and price remain in the same relation with the imported fertilizer as they stand now, there ought to be a good demand for this fertilizer in time.

Ashes.—In last year's report, ... reference was made to *Lantana ash*, and in their review of last year's report, Government directed that a sample of Lantana ash be analysed. The sample of Lantana ash was prepared some years ago from Lantana growing in this compound. ... Unfortunately the green Lantana stem, branches and leaves contain only about 2% of ash. But, notwithstanding this, the high value as a fertilizer these ashes possess ought to help very materially in keeping down Lantana in districts where there is a demand for a potash fertilizer. *Paddy husk ashes* are generally considered to be of very little value. But they are by no means the poorest sample of ashes analysed in this Laboratory, as they contain 1.57% of water-soluble potash. And the fact that paddy husks contain a high percentage of ash (those analysed here contained 21.6%) should make them comparatively plentiful where paddy husks are used as fuel.

RUBBER.

The Rubber-Planting Industry in Ceylon.

ITS PRESENT AND PROSPECTS.

(By Mr. John Ferguson, C. M. G.)

The cultivation of rubber-yielding plants (chiefly of the *Pará* variety, or "*Hevea brasiliensis*") has attracted much attention in Ceylon during the past few years and it is now estimated that there are from 115,000 to 120,000 acres planted with *Pará* (mainly), *Castilloa*, *Ceará* or the *Landolphia* vine—against about 390,000 acres under tea; 34,000 planted with cacao and about 680,000 acres under the coconut palm, the last mentioned chiefly in plantations and gardens owned by natives. Although rubber trees were shown to grow well and yield profitable returns in the local Botanic Gardens, well-nigh 20 years ago, and a rubber planting manual was locally published, tea occupied attention so greatly then that very few planters touched rubber before 1901, up to which year 2,500 acres in all were planted; by 1904 this was increased to 11,000; early in 1905 to 25,000 acres, and then came the "rush" which has led to about 120,000 acres being planted by the middle of 1907. As there has been a similar development in the Federated Malay States; while in India, Burmah, Java and Borneo (apart from East and West Africa, Mexico, &c.) a considerable start has been made in rubber planting, some authorities hold there is now some risk of "over-production," considering the supplies of wild rubber still remaining in South and Central America and in Africa. On the other hand the uses to which rubber can be applied have so multiplied, the demand for motor-car and cycle tyres so increased, and the prospect so good of the application of rubber to paving in residential squares and even public streets if only the price was less, that other good authorities think a profitable demand is sure to equal the supply for many years to come. In the case of the Ceylon planter, it has been demonstrated that he can begin to harvest rubber safely when his trees are 6 years old, the yield increasing annually as a rule, each tree judiciously planted giving from 1 to 2 lbs. prepared rubber worth (at present) 4s. to 5s. a lb.—150 trees say to an acre yielding a crop worth £30 to £60 per annum, according to age, at a cost of £7-10s. to £10; while the capital outlay on a plantation under favourable circumstances, for the first 6 years including cost of land, should not exceed £30 per acre in all. In this way there is the possibility of all expenditure being got back by the close of the 8th year. Such is the result of the actual experience in a small way up to date, for the total Ceylon annual exports have hitherto only been rising slowly from 2,792lbs in 1893 to 77,212lbs. in 1904; but rising to 168,547lbs. in 1905; 327,000lbs. in 1906 and probably over 650,000 lbs. or say 300 tons, for 1907. When it is realised that the world's consumption of rubber is about 65,000 tons per annum, it will be seen that even if we add 600 tons for the Malay States' Export this year, the total is only a drop in the bucket so far—or for some years to come. The risks before the Ceylon planter have reference to disease in his trees (especially where large areas have been rapidly planted); to a possible insufficiency of labour; and occasional unfavourable climatic conditions. It must be remembered too that in tropical cultivation, it is so often the "unexpected" that happens. Ceylon has had its great warnings in the past, in the complete failure of its coffee industry through a deadly fungus; and of cinchona, through too rapid planting, overproduction and lowering of price to an unprofitable limit. But cinchona bark only yielded a "medicine," the demand for which was necessarily very limited. The case of rubber in the markets of the world is very different, and canker and other troubles incidental to all planting have already been successfully dealt with, the Scientific Staff of the Peradeniya Botanical Gardens being ready to aid the Ceylon planter as they have already done most successfully. To young men with some capital, and still more to larger capitalists who can safely take some risk, there is undoubtedly still scope for investment in Ceylon, although suitable and easily accessible land for rubber planting is every year getting scarcer and from competition dearer,

Still, if experiments now being made in certain new districts prove a success there may be considerable additions to the available land. Crown land is usually put up at 10 rupees an acre and often rises at auction to 30 (£2) or more rupees per acre. Economically laid out, £20 to £30 more per acre should suffice to bring a plantation into bearing in 6 or 7 years; and then if each 1 lb. of rubber only costs one shilling to produce, the investor can reckon for himself the margin even if the present price of rubber falls very considerable. To young men who wish to become rubber-planters in Ceylon the best advice is that they should, through a London or Colombo mercantile house, or an ex-Ceylon resident (retired Civil Servant or colonist) get an introduction to reliable, hard-working Ceylon estate managers who would take them as pupils to be trained in return each for a fee (50 or more guineas perhaps) and cost of board. During the period of training—1 to 1½ year—the young planter capitalist can be on the look out for a block of land to purchase at the first convenient opportunity and on which he can go to work on his own account when he feels himself qualified to do so. Or he may be able to enter into an advantageous partnership, or possibly he may prefer to take shares in a promising planting concern, he himself getting employment as a paid assistant or young manager after his training has been completed. No one can speculate with absolute safety on what the "rubber" developments may be in Ceylon during the next half-a-dozen years; but that there should be room for further profitable investment of capital, and scope for more young men of the right stamp,—not afraid of work, well-educated, temperate, athletic—is very reasonable to anticipate.

"The Science of Para Rubber Cultivation."

Messrs. A. M. & J. Ferguson, of Colombo, have published a book under the above title. It contains 100 pages of literary matter and several photographic plates. It contains six lectures and papers by Mr. Herbert Wright. We quote from the preface:—

"The whole series, as here collected, forms an interesting and valuable treatise on the subject of the cultivation of "*Hevea brasiliensis*," and is presented in a convenient form which, we think, will prove useful to planters and others. The continually growing importance of the Rubber Plantation Industry justifies the publication of this collection containing, as these papers do, the most reliable and up-to-date information on the subject." Not only is Pará rubber dealt with, but also Ceará, Castilloa, Funtumia and the various rubber vines and plants of Africa, America and the East.

Seminal Variation in *Hevea Brasiliensis*.

On the site of the old Gardens in Trinidad are two mature trees both determined as *Hevea brasiliensis*. These trees yield rubber distinctly different in colour and tensile strength, one giving rubber of a distinctly yellow caste, while the other affords material having a white or transparent appearance. Specimens of each of these are shortly to be examined and reported upon.

It has also been noted that young trees in Trinidad differ very considerably in their leaf characters, which fact can only be ascribed to seminal variation. These differences will probably be found to have an important bearing on the cropping powers, and the quality of rubber produced by individual trees; and therefore the quality and yield per tree, must be made on the averages of whole fields and not upon the yield and quality of rubber produced by single specimens. This fact probably accounts for the buyers finding considerable difference in the quality of many small samples.

Quick to realize the error of its ways, the Ceylon Legislative Council adopted on the 29th ult. a resolution rescinding the following motion passed at its meeting on May 22, 1907:—"That this Council resolves that a customs duty of eight cents per pound be levied, as from the 22nd day of May, 1907, upon coffee imported into the Island."

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Popularisation of Coffee.

Writing on the 21st June, Mr. John C. Sanderson said :—

"I duly received your letter of the 25th April and so far I regret that I am without any further news from you respecting the action the planters of Southern India may be disposed to take with regard to pushing the scheme for popularising coffee. Mr. Rees, M. P., gave notice on the 18th instant to the President of the Board of Trade that he would ask a question in connection with the decline in the consumption of coffee. For your information, I enclose a printed form showing that question."

[Mr. Rees.—To ask the President of the Board of Trade, whether he is aware that the progressive decline in the consumption of coffee in this country is to some extent at least due to the practically unchecked use of chicory; whether he can see his way to so amend the law as to provide that when the quantity of chicory in a mixture exceeds in quantity the coffee contained in such mixture, it shall be labelled chicory and coffee, the former word being printed in larger type, and, where coffee predominates, the word coffee being printed in larger type, or whether he will introduce legislation requiring the use of a label specifying the proportion of coffee and inferior substances contained in every admixture for sale.]

"The replies which Mr. Rees received from the President of the Board of Trade are as under :—

"Mr. John Burns.—My Right Hon. Friend has asked me to reply to this question.

"I am aware that allegations are made to the effect stated in the first part of the question, but I am not able to state how far they are correct.

"I have received representations to show that the present state of things as regards the sale of mixtures of coffee and chicory is not satisfactory, and I have noted the matter for investigation. I may point out that it was to some extent considered by the Select Committee on Food Products Adulterations in 1896 who, however, did not see their way to make any special recommendation on the subject.

"*Supplemental.*

"Mr. Rees.—Is my R. H. Friend aware that this is a matter of great importance to the public, which can hardly buy pure coffee and to our fellow subjects abroad who grow the berry?

"Mr. J. Burns.—Yes, Sir, I have much sympathy with the views expressed by my Hon. Friend."

Annual Meeting, 1907.

Dr. Lehmann has kindly promised to address the meeting.

The Hon. Secretary, Central Travancore Planters' Association, has given notice of the following resolution—

My Association wish the following resolution to be added to the agenda paper of the forthcoming meeting of the U. P. A. S. I. under the heading of Finance :—

That the Central Travancore Planters' Association propose that the subscriptions to the U. P. A. S. I. shall, in future, be raised on an acreage basis as being a more businesslike and satisfactory arrangement than the present method of collection, and that due notice be given to the other Associations of this resolution.

In view of this resolution it is specially important that delegates should come to the Annual Meeting prepared with the latest returns of local acreage.

The South Mysore Planters' Association has given notice of the following resolution :—

SCIENTIFIC OFFICER.

That in view of the valuable financial support promised by the various Southern Indian Associations who have reported on the matter and the urgent need of a Scientific Officer to advise and help the various branches of the planting industry in S. India, the U. P. A. S. I. do approach the various Governments for financial assistance to enable the project to be carried through at an early date.

The Ceylon Tea Duty.

With reference to the joint letter on this matter addressed to them by the District and Branch Tea Association of India, which has now been received, the General Committee of the Indian Tea Association (Calcutta) have expressed their thanks to the U. P. A. S. I. for the interest taken in their efforts to have the Ceylon Import Duty abolished. They have decided to forward a copy of the joint letter to Government with the request that the consideration of the whole matter should be referred by the Government of India to the Secretary of State, and they hope that this renewed action will meet with success.

The following is a copy of the General Committee's letter to Government, dated 16th July :—

I am directed by the General Committee of the Indian Tea Association to again address the Government of India with reference to the correspondence ending with your letter No. 9495-165 dated 4th December 1906, on the subject of the duty levied on teas imported into Ceylon.

In this letter referred to it was mentioned that, in the opinion of the Right Honourable the Secretary of State for the Colonies, the question of removing the restrictions on the imports of Indian tea into Ceylon could not be conveniently re-opened at that time. This decision has given great disappointment to those engaged in the tea industry of India, who have long felt that, in the interests of Ceylon as well as of themselves, the duty should be abolished; and a joint memorial from all the District and Branch Associations, dated 20th May 1907, has been submitted to this Association, urging renewed action. I beg to enclose for the information of Government, a copy of the joint memorial, from which it will be seen that the signatories ask that the question should be submitted to the Secretary of State, through the Government of India.

In forwarding this memorial, the General Committee do not propose to reiterate the facts and arguments which they have submitted for the consideration of Government in the course of the correspondence on

this matter. Their position has been explained already at length, and I would refer you in particular to their letters No. 1246-0, dated 23rd November 1901, No. 592-0, of 10th September 1904, and No. 882-0, dated 28th June 1906. The General Committee venture to express their belief that the feeling of opposition to the import duty is becoming gradually stronger in Ceylon, and they trust that, in view of the joint memorial submitted by the District and Branch Associations, the Government of India will refer the whole question again to the Secretary of State for India.

Commission on Money Order.

Madras Chamber of Commerce have given full support and promised to address the Director-General of the Post Office in India.

Bengal Chamber of Commerce asked for a copy of the above officials' reply, which was sent to them.

Bombay Chamber of Commerce "have carefully gone into the matter, and are of opinion that the proposed reduction would not be advisable under existing conditions." They cannot support the U. P. A. in the matter.

Burma Chamber of Commerce asked the U. P. A. S. I. to "move locally for an interchange of views between the different Chambers of Commerce on the question.

<i>Madras Trades Association</i>	} have not replied. The first named however, has, written the Wynaad P. A. promising its support, and expressing the hope that the U. P. A. S. I. will now be able to carry the matter to a successful issue.
<i>Bombay " "</i>	
<i>Calcutta " "</i>	

Bangalore Trades Association asked for copies of earlier correspondence, was furnished with them, and has the matter under consideration.

Upper India Chamber of Commerce regret that they are unable to support the representation to the Director General of the Post Office in India.

Manuring of Tea.

A Nilgiri Planter writes :—

"Dr. Mann's pamphlet recording his experiment with manuring Tea at Heeleaka Experimental Station will doubtless interest all of your readers who are interested in Tea, but very little practical help will be afforded to South of India Tea Planters, because few of their estates can have "very light and sandy soil." This is the very worst soil to select for artificial manures. I would humbly submit that the experiments narrated are of little practical value apart from an analysis of the drainage water in the wet season, because we know that from light sandy soil the leakage of nitrates in wet weather is very great. Therefore it would have been very interesting to have been told whether the soil was protected with weeds in the wet weather to retain the nitrates in the soil or was kept practically clean. Was any forking or stirring of the soil given throughout the season? If so, when and how?

I respectfully submit that the Report of manurial results at Heeleaka Experimental Station is too incomplete to be of any practical value to Planters. We are not even told how or when the treated plots were pruned. As this has an important bearing on the results in yield, I would respectfully suggest that Mr. Hutchinson initiate a similar set of manurial experiments this year, but on different soils, giving us all particulars of pruning given to each plot previously, mechanical treatment of the soil, such as weeding, forking, etc., and the treatment of soil during the rains, especially analysis of drainage water during the rains. My experience is that unless the soil is lamentably deficient in organic matter, a large part of the manure applied to the soil is accounted for by a vigorous growth of weeds in the following rainy weather, which conserves a large proportion of nitrates which would otherwise be washed out of the soil.

"Would any planter in Southern India call 2 annas per bushel of really good cattle manure delivered on the field, a "fancy," price to pay?"

MEETINGS OF DISTRICT ASSOCIATIONS.

Wynaad Planters' Association.

Meeting of 10th July 1907, at Meppadi Club.

PRESENT.—Messrs. Abbott, Atzenwiler, Behr, Davidson, Mackenzie, Malcolm, Parry, Powell, Trollope, West & H. Waddington, Hon. Secy. Visitor:—Mr. P. C. Guard.

Proceedings of the last Meeting were confirmed.

Read letters from Honorary Secretary written under instructions given at last meeting. Approved.

1251—Mono-Rail. Read letter from Honorary Secretary and Collector's reply --Recorded.

1252—Vayitri Magistrate's Court. Orders have been issued to erect a shed for horses near the Magistrate's Court. Noted with satisfaction.

1253—Money Order Commission. Read letter from Mr. E. W. Orr and Honorary Secretary's reply. Approved. The Association notes with great satisfaction, that the Committee of the Madras Trades Association will support us, and trusts that the U. P. A. S. I. will now be able to carry this matter to a successful issue.

1254—Plague Passes. Read correspondence. The Honorary Secretary to obtain information asked for.

1255—Valuation of Timber on Darkhast Lands. Read letters from Collector of Malabar, giving particulars of new procedure as to the Sale of Timber on Government Waste Land applied for on Darkhast for the cultivation of special products.

The Honorary Secretary was requested to print the particulars in full—(See appendix).

Resolved that the Honorary Secretary be asked to obtain further information on the points mentioned at the Meeting.

1256—Coffee Returns Act II. of 1900. Read letter from Tahsildar enclosing letter from Collector of Malabar and Honorary Secretary's reply, which was approved.

1257—Roads, Karticolum-Coorg. Read complaint as to the condition of Road No. 28, Honorary Secretary's letter to D. B. Engineer, and his reply promising the matter shall have prompt attention.

1258—Cattle Trespass. Read letter from Mr. Winterbotham as to want of a cattle pound at Poodupardi and letter from Collector of Malabar pointing out that no one can be found to take charge of present Pound at fees allowed, Honorary Secretary's reply suggesting that some one on the Vangeri Estate should be appointed pound keeper and the pound moved to or near the estate. The Association did not see that more could be done under the circumstances.

Moovattie Case. Read the Honorary Secretary's letter to Collector of Malabar pointing out that Mr. U. K. Romitti, 2nd Class Magistrate, Vayitri, having convicted a man in case of two buffaloes trespassing on Rubber Clearing, had imposed a fine of Rs.10 only, that the small fines inflicted make the amended Cattle Trespass Act, (under which the penalty has been specially raised to Rs.50 in this District owing to irreparable damage often done and difficulty of proving ownership and obtaining convictions,) practically of little use.

Mr. Behr produced copies of Judgment and Evidence in the case, from which it appears Mr. U. K. Romitti states in his Judgment,—

"The complainant cannot swear the damage he inspected was caused by the accused's cattle. It is probable that the damage alleged to have been seen by the Writer on the next morning was caused "by some other cattle."

From copies of evidence, the complainant swore, "I can swear the damage was done by the very same cattle on the very same day." The Writer swore,

"I saw two buffaloes grazing in the rubber cultivation, eating and destroying the young rubber plants." The Association is advised there is no appeal in such cases. The Association strongly endorses the views expressed in the Honorary Secretary's letter. He was asked to write further to the District Magistrate on the matter and ask if nothing can be done in such cases where the statements in Judgment are directly opposed to evidence as shown by certified copies.

1260—U. P. A. S. I.—Mr. C. E. Abbott was elected as Delegate to go to Bangalore Meeting next month.

1261—U. P. A. S. I. *Agenda*. Labour Law. Proposed by Mr. B. Malcolm and seconded by Mr. A. Trollope:—

That as Act I of 1908 appears to be working beneficially as between Maistrys and coolies and that as far as this Association is aware, no cases have been reported to show that the Act is working in any way harshly: the Association is in favour of no further action being taken in the direction of the withdrawal of the Act, but continue to press for necessary amendments.

Amendment proposed by Mr. H. Waddington, seconded by Mr. H. Atzenwiler: That this Association is not in favour of any further special action as to the withdrawal of the Act at the next U. P. A. S. I. meeting, unless it is brought up by other Associations. Amendment was carried.

1263—*Small Pox*. Mr. Atzenwiler complained that although there was an outbreak of small-pox among his coolies, he was unable to obtain the services of a vaccinator and no lymph was available. Honorary Secretary to address the District Medical Officer.

A vote of thanks to the Chair terminated the Proceedings.

1265—*Papers on the Table*.—U. P. A. S. I. Circulars 36 to 39

I. T. A. Circulars 9 & 10

Tea Statistics No. 70

Letter from Mr. Ralph Taylor.

(Signed) C. E. Abbott, Chairman.

(Signed) H. Waddington, Honorary Secretary.

APPENDIX.

Valuation & Sale of Timber on Government Waste Lands.

Under Government Order Mis. No. 958 dated 24/4/07, Government sanction tentatively for a period of two years the proposal to sell by public Auction the trees on Government Waste Lands in the Wynaad applied for on Darkhast instead of recovering the tree value from the assignee of the land. The sales will be subject to the following conditions:—

(1) That the purchaser should remove the trees within a given time, say three months:

(2) That at the end of that time, if the purchaser has not removed the trees, the assignee of the land may himself remove the trees at the purchaser's risk:

(3) That the sales will be subject to an upset price and be held by an officer not below the rank of a Deputy Tahsildar subject to confirmation by the District Forest Officer.

The sale of trees on the above conditions will be permitted only in respect of lands applied for for the cultivation of special products, such as Tea, Coffee, Rubber, Pepper, etc., and applications for lands under the rules will be dealt with by the Collector himself after ascertaining from the District Forest Officer that there is no objection to the removal of the trees from a forest point of view.

Central Travancore Planters' Association.

The Quarterly General Meeting of this Association was held at Pambanaar, on July 18th, 1907.

PRESENT.—Messrs. H. S. Holder, (Chairman), D. McArthur, J. A. Richardson, W. H. G. Leahy, E. S. Stephens, R. Roissier, W. Graham, F. Bissett, H. C. Westaway, J. H. Kenyon, and A. H. Mead, (Honorary Secretary).

At the commencement of the meeting the Chairman said:—

GENTLEMEN,

Before proceeding to the business of the meeting, it is my very sad duty to allude to the death of Mr. J. S. Sealy, which occurred in Sydney on the 13th June last.

Mr. Sealy was at one time a planter in these hills and afterwards for many years lived amongst us as our District Magistrate. He will be remembered by many here to-day, and I invite you to join in recording an expression of profound regret and deep sympathy with Mrs. Sealy in her bereavement.

The proceedings of last meeting were taken as read and confirmed.

Read letters to Financial Secretary recashing of cheques at Peermaad Treasury and replies to same:—*Noted with satisfaction.*

Read letter to the acting Durbar Physician asking him to inform the Association on what scale the Sub-Assistant Surgeon, Peermaad, is allowed to charge.

Resolved.—That it is highly important that this point be definitely settled, as charges have been made in the last few months on 3 different scales, and that the acting Durbar Physician be again requested to give the information required.

Read letters from Dr. A. M. Jacob, Sub-Assistant Surgeon (on leave) and Dr. T. K. Verghese (acting) on subject of June subsidy.

Resolved.—That Dr. A. M. Jacob is not entitled to June subsidy and that June subsidy be paid to Dr. T. K. Verghese.

Read Report of District Road Committee:—

Resolved.—That the District Road Committee be thanked.

U. P. A. S. I. Agenda.—Read draft agenda of U. P. A. S. I.

Resolved that the following resolution be sent to the Secretary, U. P. A. S. I. to be included in the agenda of the forthcoming meeting; and that the Secretary be requested to give due notice of the same to the other Associations:

"That the Central Travancore Planters' Association propose that the subscriptions to the U. P. A. S. I. shall, in future, be raised on an acreage basis as being a more business-like and satisfactory arrangement than the present method of collection."

Bangalore Delegate.—Mr. Bissett proposed that Mr. J. A. Richardson should represent the Central Travancore Planters' Association at the Annual Meeting of the U. P. A. S. I. to be held on 19th August 1907, and that the usual allowance of Rs.150 towards the delegates' expenses be voted. *Carried unanimously.*

Proposed from the Chair.—"That this Association do not object to their representative acting for the Mundakayam Rubber Planters' Association if requested to. *Carried.*

Resolution by Mr. H. D. Deane was withdrawn.

Government Buildings, Aruday.—Resolved that the Honorary Secretary do write to Government on the subject.

District Fitter Scheme.—Accounts of the above were submitted to the meeting.

Resolved:—That the Fitter is only entitled to batta when unable to get back to Pambanaar for the night, and that the blacksmith's batta be 4 chuckrams.

With a vote of thanks to the Chair, the meeting closed.

A. H. MEAD, *Honorary Secretary.*

South Mysore Planters' Association.

Minutes of Special General Meeting of the South Mysore Planters' Association held at Saklaspur, on 11th July, 1907.

PRESENT.—Messrs. J. G. H. Crawford, (President), W. L. Crawford, T. Anderson, Capt., E. C. Forster, J. G. Hamilton, C. K. Pittock, S. Sladden, W. H. DeSalis, R. Taylor, R. F. Lamb, (Hon. Secy).

Coffee Popularisation.—The various circulars from the Secretary of the U. P. A. S. I. regarding the proposal of the Special Committee appointed by the London Chamber of Commerce to draw up a Scheme to popularise the use of Coffee in the United Kingdom and all the more important Markets having been read and discussed,

RESOLVED:—That this Association confirm the resolutions passed by the Executive Committee at their meeting held in Saklaspur on 18th June 1907, and is agreeable to be taxed within the limits proposed by Mr. John C. Sanderson; details of the Scheme to be discussed at the U. P. A. S. I. Meeting to be held in Bangalore on 19th August.

U. P. A. S. I. Agenda.—The several items on the U. P. A. S. I. Agenda Paper were discussed and the Association's instructions to their delegates drawn up.

Scientific Officer.—Mr. Pittock reported the progress made with regard to details of promised subscriptions from the S. Indian Associations, and the following Resolution was drawn up to be laid before the U. P. A. S. I. at the forthcoming meeting in Bangalore:—

That in view of the valuable financial support promised by the various Southern Indian Associations who have reported on the matter and the urgent need of a Scientific Officer to advise and help the various branches of the planting industry in S. India, the U. P. A. S. I. do approach the various Governments for financial assistance to enable the project to be carried through at an early date.

Arsikere-Mangalore Railway.—The action of the Executive Committee at their last meeting with reference to the Arsikere-Mangalore Railway was unanimously approved of, and it was resolved that the resolution then passed and since communicated to the authorities concerned and the press be placed before the U. P. A. S. I. with urgent representations that that body do take this matter up and through the Planting Member bring the urgent need of the Railway before the Government of India.

Delegates to the U. P. A. S. I.—The following gentlemen were appointed delegates to the Annual Meeting of the U. P. A. S. I. to be held in Bangalore on 19th August: Messrs. J. G. H. Crawford, J. G. Hamilton, W. L. Crawford, C. K. Pittock, R. F. Lamb.

Delegate to the Dasara.—Mr. J. G. H. Crawford was appointed delegate to the Dasara Representative Assembly to be held in Mysore on 19th October and he was instructed to place before that Assembly the necessity for the early construction of the Arsikere-Mangalore Railway.

Vacancy on Committee.—Mr. F. Hamilton was appointed to fill the vacancy on the Executive Committee.

Gambling.—The Hon. Secretary intimated that in accordance with instructions received from the Executive Committee, he had written to the Deputy Commissioners of Hassan and Chickmagalur requesting that the provisions of the Gambling Act be brought into force in their respective Districts.

Mysore State Department of Agriculture.—Copies of the Seventh Annual Report of the Agricultural Chemist for the year 1905-06 were distributed, and the continued activity of this department was noted with satisfaction.

Reservation of 50 yards near Streams.—Letter from the Honorary Secretary of the N. M. P. A. was read, and the Honorary Secretary was instructed to reply

to the effect that this Association was entirely against the reservation of 50 yards on either side of all streams, as such reservation was utterly impracticable in working.

Papers laid on Table.—

Circular letter No. 23/07 from Secretary, U. P. A. S. I.

Letter dated 28rd June from Mr. Seyed Amir Hasan.

No. 3508/3600/5 from Government of India Department of Commerce and Industry.

Indian Tea Cess Committee Memo. No. 203 T. C.

Vol. II. No. 1 Memoirs of the Department of Agriculture in India "Some Diseases of Cereals caused by *Sclerospora Graminicola*."

Bulletin No. 4. Agricultural Research Institute. "First Report on the Fruit Experiments at Pusa."

The meeting closed with a vote of thanks to the Chair.

Coorg Planters' Association.

Proceedings of the Annual General Meeting held at the North Coorg Club House, on Thursday, June 18th, 1907.

PRESENT.—Messrs. C. E. Murray-Aynsley, W. A. F. Bracken, Talbot Cox, J. A. Graham, J. W. Irwin, C. G. Maclean, E. L. Mahon, James T. Morgan, J. Green-Price, W. E. Tweedie, H. C. Wood, W. R. Wright. Honorary Members: L. T. Harris, Esq., I.C.S., Commissioner of Coorg; G. Haller, Esq., the Assistant Director of Land Records and Agriculture, Coorg; and A. Lambert, Honorary Secretary, C. P. A. The Honorary Secretary referred to the minutes of the last meeting as follows:—

Supply Bills and encashment of same at Veerajpett Sub-Treasury.—The Honorary Secretary stated that he had, at the suggestion of Government, issued a circular letter to all South Coorg members who were at all likely to make use of this Sub-Treasury for the purpose of encashment of supply bills, with the result that a very small percentage of these gentlemen were, apparently, prepared to do so, under the condition laid down by Government. Under these circumstances, the Honorary Secretary considered it highly probable that this concession would be withdrawn.

Post Office.—This matter had been satisfactorily arranged.

Pepper Protection.—A meeting of the Sub-Committee appointed at our last meeting will be held, in due course, and it is hoped that a satisfactory scheme will be drawn up thereat, framed on the lines of the Coffee Stealing Prevention Fund, and will be in force before the next Pepper Crop season.

The Annual Report and Accounts were laid upon the table, and the former was then read out by the Honorary Secretary.

GENTLEMEN,—I have the pleasure to lay before you the report of our Proceedings during the past season, and to submit for your inspection the accounts, of which I trust you will approve. I do not propose to occupy your attention for long but will merely give you a brief outline and summary of the principal questions which have come before us during the year now closing. The annual meeting of the U. P. A. S. I. was, we were advised by our representatives, a most successful one, the chief subjects affecting our interests which were discussed and dealt with being the question of Railways in Planting Districts, the appointment of a Scientific Officer for Planting affairs, the adulteration of Coffee, and the Protection of Pepper from stealing, which last question, however, I regret to say, met with but lukewarm support, perhaps owing to the fact that there was no strong resolution on the subject laid before the meeting. Dr. Lehmann, as usual, made an able and interesting speech on Planting affairs, and I consider that the hearty thanks of all Planters are due

to that gentleman for the interest he takes in, and the scientific knowledge he brings to bear on our affairs, and, therefore, I am very pleased to be able to state that I understand Dr. Lehmann proposes to resume his visits to Coorg. Moreover before leaving the subject of U. P. A. affairs, I should like to add that since our last annual meeting, we have had to welcome the advent of that useful little Journal, *The Planters' Chronicle*, and I hope that it will meet with the success it deserves, and that all Planters will do what they can to support it. As regards our proposed Mysore-Coorg-Tellicherry Railway, we have to record the melancholy fact that this line has been shelved for the time being, but we must not, for that reason, allow this very important matter to drop, but, on the other hand, continue to strenuously urge our claims to Railway communication as occasion arises therefor. Meantime we have to thank our Chief Commissioner, Mr. Fraser, and the Local Administration for their sympathetic attitude in regard to this important matter, and for the strong efforts they have made on behalf of our Railway scheme, and improved communications in general; and in this connection, we must be prepared to welcome the mono-rail, which Mr. Fraser gave us to understand there was some probability of our seeing constructed between Mysore and Coorg at no distant date and which, though, perhaps, a poor substitute for a Railway, might yet lead to the construction of a regular line eventually, and meanwhile would be of the greatest benefit to the Province at large—taking into consideration our present out of date means of transport, and the grievous personal inconvenience which is thus caused to the residents in the Province, and others who wish to visit it, and the serious interference to our trade in which such a disadvantage involves us. Our Chief Commissioner has now gone Home on leave, but we hope to welcome him back in due course. The season we have just gone through, owing to the failure of the Coffee Crop, more especially, perhaps, in South Coorg, and to some extent that of Pepper, constitutes, I should say, quite a record bad season, and we must hope that the Province will never experience such another again. Meantime I think I may safely say that the prospects for the coming season are quite favorable in every way, and with a continuance of the improved prices of our staple which have been realised this year, we should go far towards compensating ourselves for the disastrous season just ended. The question of the appointment of a scientific officer for planting affairs has met with warm approval and support in Coorg, and we can now only hope that some sound and workable scheme in connection with this important matter will be forthcoming at the next Meeting of the U. P. A. S. I. The protection of Pepper, which, in my opinion, is one of considerable and growing importance, should be made one of the leading features of our new season's programme of work, and treated too as a purely local matter, seeing that the subject appears to meet with so little support in other quarters; and I trust before the close of another season that by our own efforts, and with the sympathetic aid of our Local Administration we shall have arrived at some definite conclusion in connection with this—to many of us—weighty question. In the meantime at our last meeting it was resolved to form a Pepper Stealing Prevention Fund on similar lines to those of the Coffee Stealing Prevention Fund which has proved such a success in South Coorg, and a sub-committee was appointed to deal with the matter. Many other affairs of importance were brought to our notice during the year now closing—which, however, it is not necessary to enlarge upon here. Our roads continue in their usual satisfactory condition, so far as I am aware, and our popular and energetic Exec.-Engineer, Mr. Parker, has gone Home on a well-earned holiday. We regret that the exigencies of the service have deprived us of the services of our Assistant Superintendent of Police, Mr. Travers-Philipps, whose energy, tactful manner, and the skill with which he always carried out his by no means simple duties have been much appreciated throughout the Province, and we wish him a successful career in the future.

Mr. Sprott, our late popular and able Chairman, has, too, left us on long leave, and I much fear that his valuable services and sound advice in connection with Association matters will be greatly missed, and I hope that some day we

shall have the pleasure of welcoming him back again amongst us. The exploitation of new products continues to increase, rubber and pepper being, at present, those principally occupying our attention, and we hope that eventually, these new products will not only help to maintain but materially increase the prosperity of the fair Province of Coorg. The number of members on our list continues to keep up its average—that is, 52 members, and 2 honorary members—and the subscriptions for the season just closing are, practically, all paid. We have no liabilities, and the accounts show a balance in hand of Rs.188-1-7, so that I think I may safely say that our position from a business points of view is a satisfactory one. In conclusion, Gentlemen, I now beg to tender the resignation of myself as Honorary Secretary, and the Committee, and to thank those Members who by their assistance and the sympathetic interest they have always shewn in our Proceedings, have rendered our task less arduous, and I trust that the number of such Members will keep on increasing for the future, since it is by the help and advice of such supporters that our Association continues to flourish, and constitute the useful Institution which I consider it always has been.

(Signed) A. LAMBERT,

Hony. Secretary, C. P. A.

Proposed by Mr. W. A. F. Bracken, seconded by Mr. C. G. Maclean, that the report and accounts be passed.—Carried.

The Honorary Secretary read Mr. Rose's letter *re* South Coorg Members, C. P. A. being empowered to vote for North Coorg Members of Committee, and North Coorg Members, C. P. A. to do likewise for South Coorg Members of Committee, and the invalidity of the present ballot to be opened at this Meeting for season, 1907-08 in consequence of this having been done. The Honorary Secretary pointed out that though, as a matter of fact, a rule to the effect that, in future, in balloting for the Committee, separate lists of North and South Coorg members be made, and that each District elect its own Members of Committee had been approved, and passed, it did not appear to have been brought into force, and as the amendment of the whole of the rules of the C. P. A. was still under consideration, he had considered it best to issue the ballot papers for this season on the old lines. After some discussion, it was decided to adhere to the ballot, and accept the result of the papers about to be opened. On the proposition of Mr. Mahon, seconded by Mr. Maclean, carried practically unanimously.

Amendment of Rules of the C. P. A.—The recommendations of the Sub-Committee (North and South), appointed for the alteration and amendment of these, were generally approved, and the Honorary Secretary was asked to prepare and issue a new set.

Advertisement of Coffee.—The Honorary Secretary, in bringing forward this subject, stated that the question of popularising the use of Coffee as a beverage not only in the United Kingdom, but also in other countries, and thereby stimulating its sale, had been brought forward by our U. P. A. representative in London Mr. John Sanderson, in conjunction with the London Chamber of Commerce, with a view to taking in hand a systematic propaganda in this connection amongst all interested in Coffee, either as producers or dealers in same, and all coffee-producing countries, as far as possible, and though there was, as yet, no set scheme before the Planting Public, so far as he was aware he was strongly of opinion that we should give the proposal every support. The Honorary Secretary then read the following letter, being his reply to circular letters No. 24/07 and No. 81/07 from the Secretary, U. P. A., dealing with this subject, which ran as follows:—May 10th/07. "In reply to your circular letters of No. 24/07 and 81/07 *re* pushing the sale and generally popularising the use and consumption of Coffee in the United Kingdom, I am strongly of opinion that we should do everything in our power to try and push this matter, as much as possible, and that it should take precedence of all other Coffee questions now under consideration by the U. P. A. S. I. and that a plebiscite of the

Coffee Planters of Southern India should be taken, at an early date, with a view to finding out what support such a scheme would be likely to receive." Proceeding, the Honorary Secretary spoke to the following effect, that this proposal to endeavour to popularise the use of Coffee was one of the best and most business-like ideas ever advanced in the interests of our staple, more especially in these strenuous days of competition and advertisement when the claims of every beverage—teetotal, or otherwise—are advertised, and extolled to the fullest extent in every newspaper, in every railway station, and public place, and on every hoarding, or available blank space throughout the civilised world—excepting those of coffee, which doubtless is, in consequence, rapidly losing ground as a drink amongst the peoples of the world and, moreover, seeing that the annual consumption of coffee in the United Kingdom did not amount to even $\frac{1}{2}$ -lb. per head, and that, indeed, the masses in France, amongst whom until comparatively recent times Tea was practically an unknown beverage, were being speedily educated to its use in preference to Coffee, formerly the principal Tea total drink amongst them, it was high time that some strong measures were taken to try and improve the position of our staple (Coffee) not only in the United Kingdom and France, but in the principal countries of the world. Even the *Brazilian Review* in touching on the subject of the promotion of the consumption of Coffee states that if only Englishmen could be induced to take to Coffee-drinking, the problem of over production would be solved; and in conclusion, the Honorary Secretary said that he thought one of the chief difficulties confronting the proposal was the question of the provision of funds and that in consequence, the payment of the small tax or cess which it would be necessary to impose upon Planters in order to provide a portion of the funds necessary for the working of the scheme should be made general, and therefore compulsory in some way, and levied upon every cwt. of Coffee exported from this country by them, or others either by Government or through some other agency, and thus not only would a much larger supply of funds be forthcoming from this source towards the expenses in connection with the popularisation scheme, but the burden of the tax would then fall upon all who exported coffee from this country in just proportion. The feeling amongst the members present was unanimous in approving of the proposal, and it may safely be assumed that if a sound and workable scheme were placed before the planters of Coorg, it would receive very strong support.

New Members.—Mr. J. P. Green-Price, proposed by Mr. Graham, seconded by Mr. Maclean. Carried unanimously.

The following is the result of the ballot for new Office-bearers for 1907-08 :—

President—Mr. C. E. Murray-Aynsley.

Honorary Secretary—Mr. A. Lambert.

Committee.

<i>North.</i>	<i>South.</i>
Messrs. H. F. Davy	Messrs. E. M. Breithaupt
„ G. A. Graham	„ F. W. Gerrard
„ J. W. Irwin	„ H. G. Grant
„ C. G. Maclean	„ A. H. Jackson
„ H. M. Mann	„ F. Macrae
„ James. T. Morgan	„ R. D. Tipping.

The usual vote of thanks terminated the proceedings.

(Signed) A. LAMBERT,

Hon. Secretary, C. P. A.

Mercara, June 18th, 1907.

Kanan Devan Planters' Association.

Minutes of an Annual General Meeting held in the Munnar Club on Saturday, the 6th July, 1907, at 2-30 p.m.

PRESENT:—Messrs. J. C. Abbott (Chairman), G. E. Bewley, A. F. Martin, C. Bell, E. E. Williams, A. J. Wright, J. W. Dixon, A. J. Gwynne, A. H. Gerrard, J. C. Stewart, — Porteous, E. Lord, A. J. Imray, A. W. L. Vernede, M. C. Koechlin, W. A. Lee, H. M. Knight, R. F. Russell, A. Yates, J. B. Ingram and H. L. Pinches (Hony. Secretary.)

The Proceedings of the last meeting, which had been published, were taken as read.

Chairman's Address—

Gentlemen.—Before calling on our Honorary Secretary to read his report, there are just one or two subjects on which I should like to make a few remarks.

Thanks to the improved market, the past season has been a more prosperous one for tea than we have enjoyed for some years, and we can only hope that present prices, if they don't advance, will at least continue. There seems no doubt that the reduction in the tea duty during the last two years has contributed not a little to the improved position of our staple industry, and under the circumstances, it is a misfortune that a further reduction was not conceded this year. The Anti-Tea-Duty League, however, have once more started active work, so we may hope for a reduction next year.

We have had the pleasure of a visit this year from the British Resident of Travancore, and we are glad to hear that Government contemplate building a Residency in the District.

We have noted with great pleasure the appointment of Mr. P. R. Buchanan as a member of the Indian Tea Cess Committee, and Mr. A. F. Martin as Chairman of the U. P. A. S. I., both these gentlemen being members of this Association.

With regards to the Theni Bridge, I regret to say we have had an unsatisfactory answer from Government. We are informed that owing to the uncertainty as regards the construction of a railway through the Cumban Valley, the Government are not prepared to call upon the District Board to construct a road bridge over the Theni river. We had previously been informed by the District Board that owing to the certainty of a railway being constructed, the question of a road bridge could not be considered. I think the matter should not be allowed to drop and that Government should again be approached through the U. P. A. S. I.

I will now ask the Honorary Secretary to read his Report.

Honorary Secretary's Report and Accounts.

Mr. Chairman and Gentlemen.—

During the last twelve months very few subjects have been brought forward at our meetings, and my report will therefore be a short one.

Theni Bridge.—At the last Annual Meeting of the U. P. A. S. I., our delegate, Mr. Martin, very ably proposed a resolution—which was seconded by the Perinade Delegate and carried unanimously—that the U. P. A. S. I., should point out to the Madras Government the great importance of the proposed bridge and ask them to build it.

I regret to report, however, that the Madras Government have informed the U. P. A. S. I. that in the present state of uncertainty as regards the construction of a railway through the Cumban Valley, they are not prepared to call upon the District Board to construct a road bridge over the Theni river.

We do not, however, mean to take this as final, and the subject is on the Agenda for discussion to-day.

Road.—The cutting of the new trace on the Boday-Mettu Ghat Road has been completed during the year, and this important outlet is now greatly improved. The connecting cartroad from the foot of the new road to Boday wants metalling badly.

As regards the cost of the new road, there is still Rs.898-5-8 due to the contractor, but, on the other hand, we have not yet received the promised grant of Rs.800 from the Travancore Government, so that the Association's funds are now only liable for Rs.98-5-8. As instructed by you at the last General Meeting, Messrs. Knight, Koechlin and Pinches inspected the road and will submit their report to you to-day.

Shortage of Salt.—During the earlier part of the season, the District was greatly inconvenienced by the Bankshall repeatedly running out of salt, and on the matter being brought forward at one of our meetings, you passed a resolution, a copy of which was duly forwarded to the Excise Commissioner.

In reply he informs us that the supply of salt for the High Range is obtained from the British Government, who had fixed a certain definite quantity. As, however, the British Government had now sanctioned an additional quantity, the shortage was not likely to occur again.

Home and Ceylon Mails.—In answer to our representations, I believe an investigation has been made from Head Quarters into the unsatisfactory and irregular way in which postal matters were delivered in the District, but I have heard nothing officially from the Postmaster General, Madras, beyond an acknowledgment of the resolution you passed and an assurance that the subject would receive careful attention.

We can, however, record a great improvement in the delivery of Home Mail letters and papers.

Travancore Coffee Duty.—For the last five years this Association has on and off agitated for a reduction of this duty, and it is satisfactory to note that the Travancore Government have at last reduced this tax from Rs.20 to Rs.16 per ton.

Medical Grants.—Under instructions from your Committee, I have sent in an application for a maximum grant of one hundred Sircar Rupees per month for the Periakanal Dispensary.

Crop.—The output of made tea for the whole District for 1906 was 5,757,358 lbs., equaling 464 lbs. per acre, against 5,039,995 lbs., or 404 lbs. per acre, for 1905.

Coffee.—296 tons, or 2.52 cwts. per acre, were secured, against 194 tons for the previous year.

Membership.—Another estate, Mankulam, has joined the Association during the year.

There are now 29 Estates on the books of the Association, representing a total acreage of 16,052½.

Your Committee, at a meeting held on the 1st December 1907, added Mr. Martin, under rule 8, to their number.

The Accounts, which have been audited by Mr. Gwynne, are placed on the table. They show a credit balance of Rs.87-4-8.

Our expenditure for the year is Rs.1,677-11-9, and our income Rs.1,806-12-0.

Owing to the U. P. A. S. I. being in want of funds, we have paid them the second half of our subscription at an earlier date than usual and it has thus come into these accounts. The expenditure, therefore, includes Rs.260, which belongs to the current year's expenditure. This together with the sum we have had to pay towards the cost of the Boday-Mettu Ghat Road accounts for the excess of expenditure over income.

Finally I beg to place my resignation in your hands

Mr. Bewley proposed that the Report and Accounts be adopted.

Seconded by Mr. Lee and carried.

Theni Bridge.—Read Government's reply to the resolution passed on this subject at the last meeting of the U. P. A. S. I.

Mr. Bell proposed:—

"That this Association feels very disappointed with the reply of Government to the representations made by the U. P. A. S. I. about the Theni Bridge. Considering the uncertainty, which the Government themselves point out, of the railway, which has been under consideration for very many years, ever being built, and of which there is not yet the slightest indication, the U. P. A. S. I. be requested to again approach Government in the matter."

The resolution was seconded by Mr. Koechlin and carried unanimously.

Boday-Mettu Ghat Road.—Mr. Knight, on behalf of the Committee deputed to inspect this road, then read their report, in the course of which the Committee recommended that the portion above the new trace be now put in order and estimated that it would cost about Rs.1,500 to do so thoroughly.

Mr. Knight proposed:—

"That Surianalle, Periakanal, Devicolam, Gudurale and Lockhart Estates be cessed at one anna per acre towards the proposed alteration of trace on the Bodi-Mettu Road, and that the Kanan Devan Company be asked to give a donation of Rs.500 towards the same."

Seconded by Mr. Gerrard.

Mr. Koechlin proposed as an amendment to Mr. Knight's resolution.

"That the British Government be asked to put a toll on the road, and that the money so gathered be spent on the upkeep and improvement of the road."

Seconded by Mr. Leo.

On it being put to the meeting, Mr. Knight's resolution was carried.

Mr. Knight informed the meeting that he would give a donation of Rs.100 towards the cost of the work if the Kanan Devan Company gave the donation asked for.

The Chairman proposed:—

"That the Government be asked to finish the deviation of trace from the Quatz Ridge to near the Mettu on the Munnar-Mettu Road."

Carried unanimously.

Correspondence.—Read letter from the Postmaster General, Madras, re acceleration of Home and Ceylon Mails.

Read letter from District Magistrate re amount due Surrianalle Estate for work done in 1905, at the request of the District Magistrate, on the Munnar-Mettu Road.

The Honorary Secretary informed the meeting that as the District Magistrate informed us in that letter that road work had all been transferred to the D. P. W., he had addressed the Chief Engineer on the subject.

The following were elected Office bearers for the current year.—

MR. J. C. ABBOTT, Chairman.

MR. H. L. PINCHES, Honorary Secretary.

Committee. { MR. A. F. MARTIN,
MR. A. J. IMRAY,
MR. E. E. WILLIAMS,
MR. H. M. KNIGHT.

Bangalore Delegate.—MR. H. L. PINCHES.

With a vote of thanks to the Chair the Meeting terminated.

(Signed) J. C. ABBOTT, Chairman.

" HERBERT L. PINCHES, Hony. Secretary.

**INDIAN TEA CESS COMMITTEE,
Advertising in America—Joint Fund : 1906-07.
Indian and Ceylon Teas.**

The following is from a report by Mr. R. Blechynden, the representative of the Indian Tea Cess Committee in the United States, upon the work done in connection with the Joint Fund during the year ended 31st March 1907 :—

General Plan.

The general plans followed were those outlined in my letter of the 30th September 1904, and carried out during the year of 1905-1906 as fully detailed in my Report for that year. The territory covered remained the same as that previously dealt with, *viz.*, the States of Ohio, Indiana, Illinois, Missouri, Kansas, Nebraska, Iowa and Kentucky. The general newspaper advertising has continued in all the towns of any consequence in these States, and post-cards have been sent to consumers whose names were furnished to us by Retail Grocers through Jobbers and others. Special work has been done at various points....

Newspaper Advertising.

The newspaper advertising described in my previous report, wherein the names of grocers selling India and Ceylon Teas are, wherever possible, coupled with that advertising, was continued, and fresh names added wherever supplied by Jobbers and others. There are not many places now left where the advertisements appear without being followed by at least a few grocers' names. Some places still remain, however, where we have been unable to make this addition, owing mainly to their being in territory covered by Jobbers with whom we have not been so far connected. In some places we have but one name, in others two or three, and so on up to the large cities, where we have done special work, *viz.*, Kansas City, St. Louis, Cincinnati and Indianapolis; and here the lists are so long that we cannot afford to publish them regularly.

There are some wholesale houses who will not supply the names of their customers owing to a feeling that by disclosing these they open the way for rival houses to bid against them. This prejudice is confined mainly to the rather conservative houses who do not realize the progress India and Ceylon Tea has made in popularity in recent years, and that the time for getting exorbitant prices for them from a few grocers here and there is fast passing away. Such houses, while they will not take advantage of the system themselves, object to others doing so, in what appears to me rather a grudging spirit....

We secured very wide publicity for a short note on tea as a preventive to Typhoid, as it gave us an opportunity to bring in an allusion to India and Ceylon Tea. The item appeared strictly as news matter and was given special prominence owing to the heading: Typhoid Fever having been very prevalent this winter.

Special Work.

In my last report I described in some detail the special work in Kansas City and St. Louis, so will deal with this subject rather concisely. The general idea is to work a City thoroughly and completely and then take up another City, and so on. During the year ending 31st March 1906, we had in this way thoroughly exploited Kansas City and St. Louis. At the beginning of this fiscal year, Cincinnati, Ohio, was taken in hand.

I will here describe the course pursued in Cincinnati as an example of what we do in each place we take up. The regular general advertisement which had been running, followed by the names of a few grocers, was stopped and a large display advertisement five and one-half inches deep and three columns wide inserted in its place. Simultaneously with the appearance of the advertisement the wholesale Firm we associated with us in this work began making a special effort with India and Ceylon Teas in which their salesmen had the assistance of our special man, who, having done similar work for us elsewhere, knew what promises to make and what line of argument to use with the grocers. Tea is an article to which salesmen usually pay scant

attention as they get better results with the other lines they carry, such as coffee and spices. Our specialty man's business is to present an outline of the advertising scheme in an effective way to the Grocers and see that they realize its liberality and that they are not misled into false anticipations by salesmen themselves half informed, and anxious to get results when pushed by their Firm.

The actual sale of tea is in each case made by the salesman employed by the Firm. With the tea, under the arrangements made, the Firm delivered to the grocer one or more enamelled tin canisters in accordance with the different grades of tea bought, of the make and style generally used for storing tea on the shelves. These canisters had the words "India and Ceylon Tea" painted on them in legible letters and bore in addition the trade mark of the Firm.... With the canister the Firm sent special paper bags bearing the same imprint as the canisters and also carrying directions for making tea....

The Firm advised us weekly of the deliveries of tea to grocers so that the lists following the newspaper advertisements could be extended. A blank form was left with the grocer, on which he wrote the names and addresses of the consumers to whom he wished us to send post-cards. These were accordingly addressed by us and posted.

As soon as the list of grocers to whom delivery of tea had been made was of sufficient length, we changed the form of the advertisement in the newspapers by inserting under the display head the names of the grocers, running these in a three column space. On concluding this special work in Cincinnati the single column form of advertisement was again reverted to, with matter in special type, and this continues to run there....

This system of work was continued patiently until Cincinnati itself and the adjoining towns where the City newspapers circulate had been thoroughly covered, by which time some 400 grocers' names were appearing in our advertisements and we had received the names of some 10,000 consumers and had sent post-cards to them.

The same system was pursued in other Cities, *viz.*, Hamilton (pop. 24,000), Dayton (pop. 85,500), Springfield (pop. 38,000,) Indianapolis (pop. 169,000) and some smaller places. Cincinnati has a population of some 325,000.

In accordance with the regular system I had a considerable number of Cincinnati grocers visited and small samples of India and Ceylon Tea purchased from each of them. The results were entirely satisfactory, as in no case was China or other tea substituted for the kind asked for. I have recently extended this plan by sending a second specialty man recently engaged to re-visit the Cincinnati grocers with the two-fold object of reporting on how the teas are moving and encouraging the Jobbing Firm to follow more closely the work we jointly did during last Summer and Fall. I am very pleased with the result in both directions. The reports I have received deal with so many individual cases that I am unable to tabulate them in any intelligible way; but they can be summarised by saying that the larger stores, run by intelligent men, have no complaint to make as to the way the tea has been moving. Many have given repeat orders independently, in not a few cases, to different Jobbers. Out of the 102 stores re-visited in Cincinnati itself, 41 took the opportunity of giving further orders, taking 1,500 lbs. of tea, or an average of say 36 lbs. each. The smaller stores in many cases have not had good results, but there are very few, even of those, that have returned the tea as unsaleable.

The reports also confirm my previous conviction that the general advertising of India and Ceylon Teas makes the introduction and sale of packets of these teas easier than it is in places where no such work has been done.

Samples of Tea.

In last year's report (para. 22), I referred to having made arrangements to distribute some 18,000 samples of tea to consumers in St. Louis, and explained that, although this was a part of the programme for the season, I had been unable to carry it through during the year ending March 31st 1908.

The samples were finally all sent by mail to the addresses of consumers furnished to us by grocers. The tea was contained in a cardboard box or carton,

on which was printed simple directions for making tea. A small tin spoon or scoop was placed in each box, as a measure, to show the quantity to be used for making two cups of tea. The carton with contents was enclosed in a cloth bag to which was affixed a tag bearing the address; on the reverse of the tag the name of the grocer who supplied the consumer's name was stamped underneath a printed notice that if the addressee was not found, the sample was to be returned to the grocer. The tagging, addressing, affixing the stamp, *etc.*, occupied a good deal of time as such operation had to be carefully done; so that while consumers should be reached, the grocers who had co-operated should share in the benefit....

This sample form of advertising is to my mind one of the best that can be adopted, provided care is taken that consumers who find that the tea suits them can, without difficulty, obtain a supply at some store close by.

As we have pursued so many different forms of active work in St. Louis, it is not possible to measure the result given by any one of them, and I am therefore, unable to show figures for my faith in samples. All that I can say is that the use of India and Ceylon Teas is growing and Jobbers now handle chests where they formerly handled pounds.

I have arranged to distribute some 25,000 samples in the same way in Cincinnati and its immediate neighbourhood and in Indianapolis. The sample will this time be a little smaller, and a much better article in the way of a spoon or measure will be used. The distribution of samples has been delayed again this season owing to difficulties with the manufacturers of spoons and other causes....

The new tea-scoop is a very much superior article to the one we first used. I was induced to get up something superior this time, as I had found from experience elsewhere that a good plated scoop was taken up by our friends with great avidity and considered an especially good and attractive form of advertising. Apart from it being a permanent advertisement, the general feeling is that it will be valuable in educating people to use a moderate quantity of tea, the practice of half filling a tea pot with leaf having been generally acquired by users of China and Japan Teas. This has, of course, been one of the obstacles to a rapid increase in the use of the heavier teas of India and Ceylon.

Post Cards.

The Souvenir Post Cards we have been using have been described in my previous Report. The 40 to 50 thousand we had on hand at the beginning of this season has been exhausted. The printers who undertook to bring out a new one for us had the order in hand some four months. They were hampered by a general strike of lithographers extending all over the United States and Canada, but ultimately tendered delivery. The work had been so badly executed that, notwithstanding our necessities, I was compelled to reject the cards and place the order with a firm in New York which, having given in to the Union demands, is equipped to give delivery of good work promptly. The order is for 150,000 cards and their cost is estimated for in this year's expense....

Label Parade.

A label parade was held in St. Louis in October during the "St. Louis Home Coming Week," an undertaking with the professed aim "to call attention to the manufacturing and business strength of St. Louis." A great deal of expense is incurred on these occasions, and though observers may often think there is an inadequate want of taste and effect, the main purpose, that of attracting great crowds before which reproductions of brands, labels and trade marks can be displayed, is thoroughly achieved. On this occasion there was 125 "floats" in the procession from most of which some advertising matter, or the article advertised itself, was given away. Under arrangement with an active Coffee and Tea Jobbing House here, we arranged for the distribution of a "Souvenir Badge" which was exchangeable for a sample of India and Ceylon Tea at the Grocery Stores in the City. The badge was of colored card-board circular in form and about three inches in diameter with a loop of twine to suspend it from the button-hole. It bore on one side the equestrian figure of St. Louis with the motto "To

the Front," the recognized symbol of the City, and was inscribed as being a Souvenir of the occasion, with the compliments of the Firm in question. On the reverse the fact was stated that the badge was "good for" a ten cent. can of a certain brand of India and Ceylon Tea. Ten thousand of these cards were given out from a float carrying a large model of the design used on the packet tea is question, as we counted on a large proportion going to non-residents, others being retained as Souvenirs of the occasion, the collection of Souvenirs being a common fad, and general waste in various ways. In all 728 only have been redeemed so far, and as the parade took place six months ago, this return of 7 per cent. is probably all we will see. This illustrates the great difficulty of estimating how a scheme will work out, and why advertisers always figure on a low percentage of returns from any single form of advertising.

Packet Teas.

While the system of direct grants-in-aid to packet Tea Firms has not formed part of the programme of this Fund, we have continued to maintain the most friendly relations with these most valuable allies, who work independently upon their own lines to push India and Ceylon Teas. We have distributed through some of these friends a number of Show Cards and Post Cards, which they imprint with their own marks, brands, or other matter. In some cases we have presented tea scoops bearing their names or designs.

We have on occasion worked directly with one or another of the Packet Houses for certain special reasons. From one of these deals we obtained some rather interesting results. Three places were selected J. M. and O. In two of these towns the brand in question was advertised in the daily papers, and in the third town advertising was confined to demonstrations and extra efforts were made there with salesmen. I have been unable as yet to get any reliable data in respect of one of the small towns, but in the other two instances we are able to make comparisons. The population of M. is about 365,000, that of O., about 108,000, yet against every pound of tea sold in M., about 2½ lbs. were sold in O. In other words, if the sales in M. are taken as equal to 100, the actual sales in O. equalled 234. The conditions in each City may account for this wide difference in results; but as it is worth our own while to determine which form of advertising gives the best results as measurable by actual sales, we have now another "deal" running covering three different points. In one there will be newspaper advertising only; in another street car advertising; in the third the distribution of samples. Our friends have promised to keep a more careful record of the results in each case, but some months must elapse before any comparison can be fairly made. I propose placing the results of these trials before other Packet Firms.

With the increased general popularity of India and Ceylon Teas, a number of the wholesale houses have started their own packets of these teas, so that there are very many packet India and Ceylon Teas now on the market. As packet teas are absolutely dependent for success upon advertising, and wholesale houses are not very liberal in this regard, their packet being but one of the many proprietary articles they carry, the large essentially Packet Firms do not fear the result of this competition, as their system is to advertise and force a demand for their brands. But the smaller firms, those that have tried to get their packets into the market merely by salesmanship and personal efforts, are less fortunate and are losing ground. With these smaller Packet Firms can be classed Representatives of Firms in Colombo and London that make a specialty of the packet business either on their own account or packing to the order of Grocery Houses. Such men find local houses less willing to undertake an Agency business, unless there is some guarantee that money will be spent in advertising, and less willing to interest themselves in proprietary packets they do not absolutely control. It is for these reasons that such visitors form erroneous opinions as to the actual development that has taken place; for where they can do no business, they assume the market is bad; and where they get orders, they think it is good....

Under the Tea Law, certain "Ports of Entry" were designated at which Tea Inspectors, appointed under the Act, examine all teas imported into this

country. The most important of these "Ports of Entry" are New York, Chicago, St. Paul, San Francisco and Tacoma, corresponding to a division of the country into Eastern, Western and Northern States and the Pacific Slope. According to the Tea Inspectors' returns during the fiscal year 1905, the imports of India and Ceylon Tea into New York amounted to about 10,179,760 lbs., equal to about 19 per cent. of all the tea imported into New York. Into Chicago about 2,625,920 lbs., equal to about 18—92 per cent. of all imported. Into St. Paul about 112,290 lbs., equal to 7 per cent. of all imported. Into San Francisco about 752,200 lbs., about equal to 10—64 per cent. of all imported. Into Tacoma about 858,840 lbs., about equal to 7—92 per cent. of all imported. . . .

The views of the advertising Packet Houses who have established themselves and continue to advertise is that what they have now accomplished in St. Louis would have taken much longer to do anywhere else; and this they ascribe to the work of the Fund. . . .

Ceylon Gunpowder Tea.

For some time past there has been a good deal of uncertainty attending the importation of Ceylon Gunpowders, as the Tea Inspectors while passing some shipments rejected others of equally good quality. Under the Regulations, teas rejected by the Inspectors can be brought before the Board of Appraisers on appeal. This is a source of delay and, while most of the rejected teas were finally admitted, Importers found they were unable to sell to arrive "Inspection guaranteed," buyers knowing the probability of delay after arrival. This uncertainty was a check to the development of the trade here, as there is a market for Gunpowders in this territory. We have created outlets for a reasonable quantity of Ceylon Gunpowders and have had the mortification of seeing China Teas being used instead, on account of insufficient supplies of Ceylon. Under the circumstances, I thought it within my province to take steps to bring the matter to an issue, and made the arrangements set forth in my letter of the 24th October last to have a special lot of tea imported and sold "to arrive" in my territory; so that in the event of the Inspector rejecting it, I would be in a position to take up the matter with the authorities, carrying it to Washington if necessary.

I have in my letter of the 19th February last fully detailed the arrival and rejection of this tea and the steps taken thereafter which brought matters to what I thought a satisfactory conclusion. When I was last in New York I understood that hereafter unnecessary vexatious delays would not arise as long as the teas shipped are free from added dust held together by gummy substances and that they in other ways conform to the regulations. I communicated all the available information to the Ceylon Firms in New York and placed samples of the test shipment at their disposal. I have also sent pound samples to Calcutta for the use of those interested.

Since my return from New York I have been advised that further shipments of Ceylon Gunpowders have arrived and have been rejected by the Inspectors and will have to get to the Board of Appraisers on appeal. It is disappointing to find that this question remains unsettled still, but it was upon this point we intervened, and we are now in a better position to take the matter up to Washington as it seems must be done; for the Tea Inspectors appear to be under the direct authority of the Secretary of the Treasury. The difficulty is due to the Inspectors reading certain meanings into the letter of the regulations, to which they will adhere until they have direct instructions from the Treasury Department. The Board of Appraisers who hear the appeals from the Inspectors' decision construe the Regulations differently, but have no authority over the Inspectors.

The shipment guaranteed by the Fund was passed on appeal; so our responsibility has ceased and the teas have been delivered to St. Louis and Cincinnati buyers.

Influence of Work.

The work done during season 1905-1906 carried into effect plans which had previously been carefully considered and established the system we have since followed. Under the circumstances but little novelty can be looked for in a

Report of this nature ; at the best it can only be a record of steady, continued and systematic effort along lines already known and approved. We have sound reasons for believing that excellent results are being obtained, the index of this being the "repeat orders" from the retail trade. Here as formerly in the Eastern States, some wholesale Firms are opposed to the increased use of India and Ceylon Teas, while others are very active in pushing them ; these latter, therefore, are anxious to see us extend our operations, while the others, though they probably all carry some stock now, object to having their hands forced. . . .

Within our territory there are now many thousands of Retail Stores where India and Ceylon Tea can be bought whose names we have on our records. The 1,411 grocers who have supplied us with lists of their customers being but a fraction of the whole. Side by side with the introduction of loose teas, which makes the work easier for these allies, packet teas are making progress, so that India and Ceylon tea in one form or the other is having wide distribution. The first step, that of getting the teas into the Retail Stores, is now almost made. The more difficult task remains, that of converting the great body of the people to take our tea in preference to those to which they have long been accustomed. Such radical changes of taste cannot be brought about within a few months.

Advertising in America—Separate Fund : 1906-07.

Indian Teas.

The following extracts are taken from a report by Mr. R. Blechynden, the representative of the Indian Tea Cess Committee in the United States upon the work done in connection with the Separate Indian Fund during the year ended 31st March, 1907 :—

Period of Active Work.

Owing to the smallness of the Fund, it was not advisable to attempt to carry on active operations during the whole of the twelve months for which it was allotted, so the plan adopted during the previous year, *viz.*, concentrating active work within a few months, was again followed.

General Plans.

In my report for season 1905-1906 I referred to the change in the conditions of the trade compared with the time when active work was being done with the Voluntary Fund under the auspices of the Indian Tea Association and explained that these changed conditions made it expedient to follow a different plan of operations to meet existing circumstances. Briefly, importers and jobbers having abandoned their attitude of actual hostility, or at the best passive resistance to the use of India Teas, it had become possible to reach and interest the retail trade through them and, through the retail trade, the consumers, the one class whose support it is the ultimate aim of all advertisers to secure, as with the consumers rests the success or otherwise of such undertakings as ours.

As the results obtained from the work done in 1905-1906 had in most cases been eminently satisfactory and were continuing to show results, it appeared to me to be the best policy to follow it up on the same lines and through the same channels. In one instance, that of a Chain Store, where I had reason to think our interests had not been looked after last year as carefully as could have been wished, a change was made, and this concern was not included in our plans for this season. On the other hand, a firm that had shown good results in return for a very small sum expended through it last year and had thereafter carefully followed up the work thus inaugurated was now accorded a much larger measure of support. . . .

Scheme Outlined.

The central idea of the scheme was the distribution of samples to reach consumers, so arranged that it should be to the interests of the jobbers and of the retailers to pass the samples on so as to reach the hands of those for whom they were destined. The whole backed by newspaper advertising.

It is recognized that the handling of bulk teas on the regular lines means having to meet continuous and endless competition, as exactly the same teas may be offered to the same buyers by rival houses. This competition is not only between Jobbing Houses, in whose cases the grocer is the "buyer," but between grocers, in whose case the consumer is the "buyer." The first step, therefore, was to offer some form of protection against competition which would cover both jobber and retailer. To this end, I agreed to either supply or pay for suitably designed and printed "faces" in colours, to be pasted on the original packages (chests or hchs.) of tea. The faces bore different designs, names, or trade-marks, thus converting each original case of bulk tea into a proprietary package.

The matter used on the faces was printed in the same colours on show-cards and also upon the cartons or card-board boxes in which the samples were distributed. The adoption of this system gave the jobber and the retailer an inducement to get the samples into the hands of consumers, as, in the event of a demand for a given brand, it could only be bought through certain channels.

The next step was to have some kind of check on the samples distributed and insure their proper use, i.e., their being passed on to the consumer. The terms made with the jobbers were aimed to secure this by allotting a given number of samples to each half-chest of tea they sold under this deal; they in turn making the samples the inducement for the retailer to buy. The jobber was expected to see that the samples were properly used by the retailer, but he could not exercise any actual control; and the weak point in the scheme was that the grocer might turn out the samples into his bins. While a few might do this, those inclined to divert the samples from their original purpose were more likely to either sell them as they stood for five or ten cents, or give them as a bonus to customers buying other articles in their stores. In either of these cases, i.e., selling the samples or using them as a bonus, our object would be achieved, as a sample of straight Indian Tea would thus be placed in the hands of the consumer. On the whole, considering that the very small struggling grocer would not be likely to buy an original package of tea, I am inclined to think that by far the largest part of the samples reached their intended destination in their original shape.

While we did not provide for this being done in the general scheme, the offer of a sample as a bonus for the purchase of other articles is quite in consonance with my ideas as to their proper use, and in the arrangements made with a Chain Store concern, detailed in another part of this report, there was a clear understanding that they should be used in this manner.

Details of Scheme.

Although the central idea of the scheme outlined was generally followed, there were certain modifications as respects the ratio of samples to the tea to be sold, and other matters in certain instances, and these are dealt with separately in succeeding paragraphs.

The original arrangement with the two Jobbing Houses which between them covered the largest territory, including the States of New York, New Jersey, Connecticut, Massachusetts, Rhode Island, Maine and Pennsylvania, was based on 2 oz. samples of tea, in cartons, costing 20 cents per pound, or 2½ cents each sample. The samples to be allowed at the rate of fifty samples to each half chest of, say, 65 lbs. of tea sold. This worked out about 1·9 cents per pound. The territory referred to was divided, each firm having its own field, so that they would not interfere with each other's operations.

On the basis set forth we calculated that the two firms in question would be able to sell about 5,600 hchs. of tea, or, say, 364,000 pounds and would utilize 280,000 samples between them.

At the time the plans were made, prior to the rise in the price of tea, all parties to them were entirely satisfied that good results would follow. The rising market, however, checked operations, as our friends delayed looking for the usual reaction. The higher prices they ultimately had to pay, and in their

turn demand, demoralized the entire scheme; and finding the teas were moving so slowly, I went to New York and revised the plans.

In readjusting things to suit the changed conditions, the principle of using the retail trade to distribute samples of India Tea to consumers remained the foundation; but more liberal allowances had to be made for the cost of the samples and for the number of samples allowed to each half-chest sold. The latter concession had to be made to induce grocers to buy at all, on a rising market, a class of tea they feel they can get along without.

The increased cost of the sample, which came to an advance of 25%, reduced the number of samples the sum allotted for the purpose could provide and reduced the volume of sales we had calculated upon. The actual working results given by one of the firms in their final report was as follows:—

New York, 18th May, 1907.

"We report our deliveries and contracts now under orders for the shipment of India Tea, to cover your appropriation for that purpose. We have paid careful attention to your liberal plan and the late special favour of increasing the (proportion of) samples made a rush of business. We figure the amount as reported in ours to you of March 15th as 16,000 lbs., equal to 128,000 samples.

Tea sold 1,557 cases and H/C of black and green India Tea. The spoons took well; the hangers were a great success; the faces for the cases and H/C a very valuable attraction.

It will please you to know that India Tea is being asked for instead of Ceylon, that had the call in this section of our country. It is our pleasure to inform you that we never deceived a buyer by selling other than India for and with your appropriation.

The second large firm mentioned in my report of the 23rd of October last, the one which, as mentioned in paragraph 4 above, had given exceedingly good results for a small expenditure, has not done at all well. I am unable to state definitely just what interfered with their plans, as they were quite hopeful of results to a recent date. It is possible that they had not a sufficient stock of earlier bought teas to average prices and meet competition or were tempted to take their profits out of the Jobbing Market and not wait for the retail trades slower purchases. The following quotation from a letter from our other friends may here be of interest, as it is suggestive of some of the difficulties encountered in getting such plans as we have to enter into carried out effectually:—

"One of the very valuable features was that I had more India Tea than any other merchant in New York; on a basis no one could offer at equal value, and I kept buying at part of the advance, so as to be able to meet the requirements of the India sample deal and have plans well laid to carry it out. We were able, having the stock we did have, to trade on a basis that was apportioned and we did not take advantage of the advance in the Jobbing Market, but gave our trade, as we always do, the benefit of our stock. We have never taken a cent advantage, because the samples were included, and I think this is a great feature for the benefit of India Tea and your plan."

Whatever the cause may have been our friends, the second firm, after printing cartons, faces and hangers, paper-bags, etc., and putting up a small number of samples, finally reported on the 16th instant, that to that date they had expended about one-sixth of the appropriation and sold a disproportionately small quantity of tea...

Philadelphia Operations.

The scheme for working in Philadelphia was so fully and clearly set forth in the letter from the firm we arranged with there, which I made part of my preliminary report of the 23rd October, that there is nothing left for me to add by way of explanation. I may, however, give a brief summary here to make this report complete.

The general scheme for "faces," show cards and cartons was followed and some provision was made for special circulars to the retail trade. Instead of using original cases, the tea was repacked in 30-pound boxes. The grade of tea was higher and the samples packed in cartons cost 23 cents per pound. The ratio of samples to pounds of tea sold was higher than in the general scheme, being 80 samples to each 30-pound box. The cost worked out $2\frac{1}{2}$ cents per pound on tea sold and they calculated to sell 69,560 pounds of tea under this scheme....

Tea Scoops or Measures.

The greatest obstacle to the more rapid adoption of India Tea in this country is that it is so much stronger than the teas the people are accustomed to use. While our newspaper and other advertising has for years been aimed to educate customers to use smaller quantities than they do of other teas we constantly hear the same complaint, *viz.*, that our teas are bitter and astringent. Housekeepers brought up to measure the amount of tea to put into a tea pot in the inverted cover of the ordinary earthenware pot, or by handful, cannot be made to understand without some more tangible demonstration than can be given in print, that "One tea-spoonful makes two cups." Newspaper advertisement, printed instructions on samples, the printed instructions used by all the packet-tea firms, all appear insufficient.

I had gained some experience on a reasonable scale in using a cheap block-tin tea-scoop, or measure, and consulted our various friends and allies as to their utility. Finding all unanimously in favour of them, I gave an order for 100,000, later increasing this to 115,000, scoops of superior make and finish, electro-plated and sufficiently good to be preserved. The scoop is made with a wide handle at the end of which, in relief, are the words "India Tea, one tea-spoonful makes two cups." The bowl is circular with about the same capacity as an ordinary tea-spoon. Owing to its shape it does not lend itself to the leaf being pyramided as is possible with a tea-spoon. The scoops were divided principally amongst the firms with whom we made our arrangements, but were considered as outside of the deals, as a special form of advertising which it was desirable to get into the hands of consumers.

Following our regular policy of insuring to ourselves the efforts of our friends, by giving them some direct benefit in return for their aid, we also embossed the names of the mark under which each was pushing India Tea, on the handle of the spoon near the bowl. I was not prepared for the very great demand for these scoops; nor, indeed, had I sufficient funds to enable me to order as many as were wanted. However, I apportioned them to the best of my ability and gave 15,000 for distribution through certain New England firms with whom I had made no other arrangements.

A number of the scoops were distributed through the Chain Store concern previously referred to; and in response to an inquiry as to their value after a practical trial, they wrote:—

"I regret that I cannot give you any reliable information with regard to the value of the tea scoops for advertising purposes. Our experience has been that the scoop itself is not likely to create any very great demand for the tea, even when the scoop is given with a 10 cent package. My idea is that the only benefit derived from the use of the scoop is in the increased satisfaction that the India Tea will give to the customer when properly made. Only a comparatively few of our customers purchase the tea and obtain one of the scoops, and it is, of course, impossible for us to tell whether they are making practical use of the scoops in measuring out the tea.

I should say that the value of this class of advertising, like all other advertising, can be determined only by the permanent results which are not apparent at this writing. My personal opinion is, that the free samples will yield better permanent results in proportion to the initial cost than any of the schemes we have tried."....

Tea Presented to Hospitals.

As a means of bringing India Tea before the large number of Doctors and Nurses as well as a great number of consumers, we sent out in July (1906) half a chest of tea each to 45 different hospitals and similar institutions in and near New York. The distribution was carried out through the good offices of Messrs. G. C. Cholwell & Co., who sent a separate letter to each of the institutions and obtained acknowledgments of delivery....

Green Tea.

In my report of last season I gave a good deal of space to Green Tea and the bad effect of uncertain supplies. I regret to say that the supply this season has been even more irregular than it was during the previous year, and as a consequence some of the firms who made a good start with India Greens have been unable to get more of the grades they wanted and have bought Ceylon Greens instead. I have before me the actual figures of three such instances. (One firm bought in all 226 packages, another 464 packages and the third 205 packages. All three of these have recently had to buy Ceylon Greens for the reason given.

I once more beg to submit that the soundest way to build up a trade in India Green Teas is to get a certain number of distributing firms to take them up and keep them supplied with the grades they require for their trade.

The other course, shipping the tea to this market to sell against Japans and Ceylons, means creating and meeting perfectly unnecessary competition as, if the three growths are used indiscriminately, price will remain the determining factor. Yet no house can venture to make a specialty of India Greens and push them against other growths, unless they have the assurance of a regular supply....

Some General Remarks.

I have here to point out that the distribution of samples, together with newspaper advertising and the distribution of tea measures, constituted the advertising scheme. The arrangements made for Jobbers to sell tea, although linked to the scheme, was, from an advertising point of view, a special backing and supporting scheme subsidiary to advertising as such. It is by no means an integral part of the advertising schemes of *general advertisers* to connect thus directly with the actual sale of articles. Frequently the two things are disassociated and the advertising is done only to create a demand, which will be supplied through the regular channels.

I bring out this point here as it may otherwise be lost sight of and the value of the operations generally may be appraised only upon the actual quantity of tea sold in accordance with the subsidiary schemes; yet it would be perfectly legitimate advertising to distribute samples of tea to consumers direct, had we the funds and organization to do this.

It is true that the cost of doing this would be from 50 to 100% greater than by the method we adopted and would have lacked the advantage of insuring a sufficiency of India Tea being promptly on the spot to meet immediate requirements; but these facts only go to show that our plan was a good one and support the contention that the quantity of tea sold in the way of backing is not the measure of its value....

Conclusion.

The separate advertising of India Tea, now that there is no general advertising of Ceylon Tea, has, I think, made the name of India Tea better known than was the case formerly. I have had reports to this effect from various quarters but am unable to measure their value. I have, however, seen independent local advertisers mention India Tea alone, or in connection with that of Ceylon which was not done formerly. Generally, the name Ceylon includes India so far as tea is concerned.

I do not attach undue importance to the use of a name as the trade will continue to treat the two kinds, India and Ceylon, as being the same thing, so long as the consumer does not discriminate between them. It remains to be seen how this custom of the trade will be affected hereafter by the Pure Food Law. Should this be more rigidly enforced, it will in effect favour Ceylon Teas, as British-grown Teas are more frequently described under that name alone.

INDIAN TEA ASSOCIATION, Calcutta.

The following is taken from an abstract of the proceedings of a meeting of the General Committee held on the 9th instant :—

Statistics of the Production of Tea in India.—In his letter of 14th June Sir James Buckingham forwarded the suggestions of his Committee in connection with the form which the Director-General of Commercial Intelligence proposes to substitute for that at present issued to planters, and he also sent a draft form giving effect to these suggestions. This draft form differs in several ways from that of the Director-General, and the General Committee agreed that a copy of it should be forwarded to him after replies have been received from all the District Associations and Branches to the General Committee's request for an expression of their views on the Director-General's proposal.

Scientific Department.—There was considered a letter of 25th June from Mr. Hutchinson, the Chief Scientific Officer of the Association, with reference to the question of the accommodation of visitors to the Heeleaka station. Dr. Mann originally brought the matter up and pointed out that it was very inconvenient that there should be no room in the Assistant Scientific Officer's bungalow in which he could put up a visitor. The General Committee discussed the matter. They were unanimously of opinion that the additional room proposed for the bungalow should be sanctioned, and plans and estimates were to be obtained as soon as possible. It was agreed also that the room should be furnished at the expense of the Association, as it would be used almost exclusively as a visitors' room.

Ceylon Import Duty.—The Committee had now before them the joint letter from the District Tea Associations of India urging that the time has arrived for actively pressing on the attention of the Secretary of State, through the Government of India, the injustice suffered by the tea industry here from the Import Duty imposed by Ceylon on tea from India entering that Colony. The joint letter gives arguments in favour of the abolition of the duty and is signed by representatives of all the District and Branch Associations in India. After discussion it was decided to forward the joint letter with a representation to the Government of India and to send a copy to the London Association.

The General Committee of the Indian Tea Association (Calcutta) have circulated, for the information of members, copy of a letter of 27th June that has been addressed to the Association by Mr. Achilles Scordo, a merchant in Constantinople, who is anxious to enter into business relations with some firm of exporters. This letter states :—

"I shall feel greatly obliged if through your good offices you will put me into business relations with some firm of exporters." I would prefer such a house to be one that will deal exclusively with me and that such a house has or had no transactions with any other of our local tea importers.

"I have been in the trade for over twenty-five years and so far have only been doing business from London.

"There is no difficulty about financing, as I will open a credit at any Calcutta Bank, and payments will be made on the spot as against the invoice and Bill Lading."

Mr. Consul Carew Hunt reports that during the year 1906, 1,787,807 bags of Brazilian coffee reached New Orleans, valued at £3,619,258, as against 1,404,658 bags in 1905 valued £2,997,615. Increase, 333,149 bags. The growth of the coffee trade at this port, he says, is due to the Southern Railways competing for the business of the Western States with the Eastern seaboard lines. It is found to be cheaper to import Brazilian produce destined for the West through this port than through the Atlantic ports. Coffee is the most important article imported at New Orleans allowed in duty free. Formerly the steamers of one line had the monopoly of bringing coffee from Brazil to this port at a handsome profit, but that is changed now, and hence steamers carry much of it at a large reduction in freight.

THE INDIAN TEA ASSOCIATION, London.

The twenty-seventh annual general meeting of the members of the Indian Tea Association was held at the London Chamber of Commerce, Oxford Court, on Wednesday, July 8.

Mr. Sinclair MacLeay (the retiring Chairman) presided, and there were present—Messrs. J. Alston, A. Bryans, R. J. Boyle, G. W. Christison, Fred Carter, R. B. Doake, G. Henderson, J. S. Hulbert, R. Magor, Colonel A. J. MacLaughlin, C. I. E., J. G. MacLean, C. C. McLeod, P. Russel, J. N. Stuart, A. G. Stanton, G. Seton, John Stewart, H. F. Turner, F. T. Verner, C. Williams, H. B. Yuille, and Sir J. Buckingham, C. I. E.

The Secretary (Sir James Buckingham) having read the notice convening the meeting.

The Chairman said:—I take it you have all received a copy of the report, and I am going now to propose: "That the proceedings of the general and special committees of the past year be confirmed, that the report be adopted, and that the accounts as audited be passed as correct." Our able secretary has given you very ample information in the report, and I do not propose to take up very much of your time in dealing with it. The crop of 1906 from Northern India was the largest on record, exports amounting to 221,252,803 lbs., or an increase of no less than 16,857,314 lbs. over the previous year. The crop from Southern India amounted to practically the same quantity as the previous year, viz. 11½ million lbs., against 11 millions the previous year. Notwithstanding the large increase from Northern India, the average price for garden tea rose from 7'3d. in 1905-06 to 8'11d. in 1906-7. The most important work taken up by the committee during the year was the new ocean freight agreement. The subject was discussed at eight committee meetings during the year, and both the chairman and vice-chairman interviewed members of the conference from time to time to discuss various points as they arose, and reported the result to the committee. I may say that I myself interviewed members of the conference, and one in particular, altogether sixteen times. Although the agreement might not give altogether universal satisfaction to shippers, there is no doubt it is a considerable improvement on the old one. We have got rid of the unsatisfactory arrangement of calculating the tea freight at so much above rough cargo—(hear, hear); and, secondly, the period for giving notice is reduced from two years to six months. We have also been able to get a clause inserted to the effect that the conference will not give any preference whatever to other cargo, even if the rate for rough cargo happens to be in excess of the tea rate. (Applause.) It is satisfactory to note that practically everyone has signed on this side; and agreements have now been sent to Calcutta for the use of companies and estates who will sign there. As I am now speaking about ocean freights, I may mention that Mr. C. C. McLeod and Mr. R. B. Magor were nominated by your committee to give evidence before the Royal Commission on Shipping Rings. Mr. Magor did not return from India in time to give evidence. Mr. McLeod, however, went to a great deal of trouble in collecting data and in giving his evidence, and I shall later on propose a vote of thanks to him for his valuable services in this matter. (Applause.)

Blackwater Fever in the Doars:—We hope arrangements are now nearly completed for an active research in connection with Blackwater fever in the Doars. Your committee are greatly indebted to Mr. John Steel for his generous offer of £100, provided it is found necessary to raise a fund. (Hear, hear.) The Assam Labour Inquiry Commission Report has also engaged the attention of your committee, and the correspondence on the subject, which is rather voluminous, will be found in the appendix. A sub-committee was appointed to deal with the question of the re-assessment of tea lands in Assam and Surman Valleys. They considered it was advisable to get our solicitors' opinion on such an important subject, and they trust matters will be arranged satisfactorily to both valleys. Government are being memorialised as to the necessity of the tea cess being continued for a further period of five years. Your committee have very strongly supported this, and they understand it is also meeting with unanimous approval in Calcutta. (Applause.)

In the scientific department, we shall all very much regret to lose the valuable services of Dr. Mann, our scientific officer. He has done excellent work during the time he has been employed by us, and, although it will be a serious loss to the industry, we do not grudge him such an advancement of his personal interests as to become principal of the Government Agricultural College at Poona (Hear, hear.) I am sure you will join with me in an expression of deep regret at the loss of the late Mr. J. S. Fraser, who had been our colleague and friend for so many years.

I should like to make one or two remarks about the tea duty. I am sorry to see that our friend, Mr. Roberts, the Chairman of the Anti-Tea Duty League, is not able to be present with us to-day. Unfortunately, we were unable to get any more money towards that League from the cess fund, but I think we should all join together in supporting the movement. You will see, from the result of the debate in the House on Monday evening last, that although we have not been very prominently before the public, the League (of the committee of which I am a member) have taken some steps even with their reduced funds to draw attention to its subjects. Our thanks are due to Mr. Verner for what he said at the meetings of the Doars and Empire of India Companies—(applause)—dealing with this matter. I think it is a most important one, and I endorse thoroughly all that Mr. Verner said at those meetings. We cannot do better than support the League. I propose to do so myself, and I understand that an appeal for support will shortly be sent out to all the companies. If we only do it in the way which Mr. Verner promises, we ought not to get only 1d., but 2d. off the tax. (Hear, hear.) I cannot sit down without congratulating Dr. McLaughlin upon the honour which His Majesty has lately conferred upon him. (Applause.) I now have pleasure in proposing the resolution I have read to you. (Applause.)

Mr. J. N. Stuart was elected Chairman, and Mr. R. Magor, Vice-Chairman of the Association for the ensuing year.

THE CEYLON PLANTERS' ASSOCIATION.

PROCEEDINGS OF THE COMMITTEE.

The following are extracts from minutes of the proceedings of a Meeting of the Committee of the Planters' Association of Ceylon, held at Kandy, on the 12th July, 1907:—

DISTRICT ASSOCIATIONS.

Read correspondence with the Batticaloa Association and Mr. E. E. Green re Red Beetle Pest. Intimated that a grant of Rs.1,00,000 had been made by Government and that Mr. Green was now in the Batticaloa District.

CHAIRMANSHIP OF THE ASSOCIATION.

Read letter from Mr. Jas. R. Martin re Chairmanship, and intimating his return to Ceylon by the end of September at latest. Mr. E. Turner kindly consented to continue acting for Mr. Martin till his return.

RUBBER THEFTS PREVENTION ORDINANCE.

Read letter from the Colonial Secretary intimating that an Ordinance was under consideration.

CEYLON ASSOCIATION IN LONDON.

Read letter from the Secretary.

Resolved:—"That this Committee approve of the resolution forwarded by the London Association that an estate record of coolies' indebtedness be kept and that all members of this Association be asked to co-operate."

Mr. Consul Thesiger, St. Petersburg, reports that the total quantity of Ceylon tea imported into Russia over the European Black Sea frontiers during the year 1906 amounted to 12,247,780 lbs., as compared with 18,404,928 lbs. in 1905. The quantity of India tea imported during the same period was 8,659,904 lbs., as against 6,767,424 lbs. in the previous year.

OFFICIAL PAPERS.

**Note on the
Production of Coffee in India**

In the year 1906.

[The figures are throughout imperfect as many planters neglect to send in returns. An attempt has been made to rectify the statistics of area for Madras by adopting, in the abstract table, the figures of the Agricultural Statistics of the province based on village accounts, when these are higher than those returned by the planters. The estimates of the yield are generally so very far wrong in all the provinces and States that no adjustment of the details is possible but the total production can be corrected by the total of the exports from India.]

Area.

At the end of 1906 there were 210,688 acres of land under coffee, all, with the exception of 168 acres, in Southern India. The production of coffee is restricted for the most part to a limited area in the elevated region above the south-western coast, the coffee lands of Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris, comprising 86 per cent of the whole area under the plant in India. About half of the whole coffee-producing area is in Mysore, where there were 101,489 acres in 1906, while in Coorg there were 46,898, and in the Nilgiris and Malabar about 82,500 acres. Some coffee is grown in other districts in Madras, principally in Madura, Salem, and Coimbatore, and in Travancore and Cochin. It is grown also, but on a very restricted scale, in Burma, Assam and Bombay.

The total estimated area shows a decrease in each year since 1896. On those estates for which reports are received from planters, the total area of new lands planted with coffee in the three years 1904, 1905 and 1906 is only 8,816 acres, while the total area of old cultivation abandoned is 29,880 acres, which represents a net decrease of 21,564 acres under coffee in the three years.

Production, Consumption, Exports and Imports.

It is noticeable that while the area has been steadily diminishing, the exports which account for the greater part of the crop rose steadily in the five years ending 1905-06, and were greater in that year than in any year since 1888. In 1906, however, unseasonable rains were reported from nearly all the principal coffee-growing districts, and the total quantity exported decreased by over one-third. Taking 100 to represent the area and exports in 1885 the variations in both from year to year are stated below :

Area.		Exports.		Area.		Exports.	
1885	... 100	100		1896	... 128	57	
1886	... 97	100		1897	... 122	61	
1887	... 103	74		1898	... 121	73	
1888	... 104	98		1899	... 116	76	
1889	... 110	65		1900	... 115	66	
1890	... 114	68		1901	... 110	69	
1891	... 111	84		1902	... 100	73	
1892	... 110	80		1903	... 96	78	
1893	... 112	75		1904	... 91	89	
1894	... 117	76		1905	... 90	97	
1895	... 120	78		1906	... 89	61	

It is impossible to arrive at any estimate of the quantity of coffee consumed in India; but it must be considerable, for in Southern India, at all events, there are none but the poorest who do not drink coffee and no bazaar so small that coffee is not procurable.

The exports during the last five years and the countries to which they were directed are shown below in lbs. :—

	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.
United Kingdom ...	17,416,112	17,074,624	20,982,528	19,307,008	9,224,096
Austria-Hungary ...	316,400	219,296	400,960	300,272	124,208
Belgium ...	401,744	402,752	470,176	570,864	1,009,344
France ...	8,311,184	11,716,880	10,850,112	14,810,096	10,695,216
Germany ...	990,432	227,248	315,616	251,104	182,112
Holland ...	...	...	...	...	34,272
Italy ...	12,208	17,024	70,112	117,152	8,736
Russia ...	112	...	...	...	...
Egypt ...	...	2,016	...	21,056	67,312
Abyssinia ...	336	...	...	212,128	278,432
Africa, East (British)	1,568	784	896	2,128	11,872
" " (German)	5,040	4,082	2,352	6,608	8,064
" " (Portuguese)	224	...	336	4,928	...
" " (other ports)	1,680	...	...	...	...
Madagascar ...	336	224	...	...	...
Mauritius ...	42,896	95,586	35,504	309,120	187,376
Natal ...	17,584	10,416	14,336	7,616	...
Cape Colony ..	...	112	...	...	112
United States ..	20,944	33,600	21,504	...	...
Aden ..	...	...	...	...	1,904
Arabia ..	327,712	227,360	272,272	783,776	510,160
Bahrein ...	...	...	64,176	334,432	370,272
Ceylon ...	2,141,104	1,999,872	2,565,584	2,077,824	2,080,624
China ...	1,344	...	...	11,872	4,480
Japan ...	...	...	...	1,120	336
Java ...	...	...	...	112	...
Mekran and Sonmiani	...	...	112	...	...
Persia ..	50,848	15,232	18,032	76,496	23,184
Straits Settlements...	2,912	...	...	784	448
Turkey, Asiatic ..	137,088	59,136	25,200	214,928	80,192
Australia ...	546,672	514,304	810,656	918,960	643,776
TOTAL ..	30,146,480	32,620,448	36,920,464	40,340,384	25,546,528

The two chief markets for India coffee are the United Kingdom and France. The following tables show the relative position held by Indian coffee in the imports of these countries as compared with other coffee :

Imports of Coffee into the United Kingdom from India compared with other principal exporting countries.

	1902.	1903.	1904.	1905.	1906.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
British India ..	86,010	192,878	162,762	191,950	144,265
Germany ..	97,587	78,741	61,139	54,230	36,835
France ..	34,837	136,113	136,570	75,806	53,724
Brazil ..	281,341	298,903	127,037	143,324	182,377
United States of America ..	118,030	117,191	135,600	130,948	...
Costa Rica ..	86,845	86,266	83,427	98,013	...
Columbia ..	59,015	118,871	129,689	49,994	...
Guatemala ..	46,584	89,061	85,302	71,595	...
San Salvador ..	15,860	19,331	62,260	44,456	...
British West India Islands..	24,988	14,978	12,375	12,487	...
Other countries..	72,025	50,605	59,074	56,656	401,906
TOTAL ..	922,122	1,142,988	1,055,235	929,459	769,107

* Estimated.

† Included under "other countries."

Imports of Coffee into France from India compared with other principal exporting countries.

	1902 Cwt.	1903 Cwt.	1904 Cwt.	1905 Cwt.	1906 Cwt.
British India † ..	137,594	198,986	119,608	159,856	149,680
Venezuela ..	77,859	197,636	268,654	95,666	168,589
Brazil ..	2,867,509	2,872,877	680,942	658,045	1,742,876
Haiti ..	506,409	505,637	788,889	359,105	489,458
Cuba and Porto Rico ..	108,221	106,342	94,108	25,550	86,888
Other countries ..	604,062	648,046	677,229	587,863	619,526

TOTAL .. 3,801,654 4,019,524 2,624,375 1,881,085 3,206,512

No Indian coffee went direct to the United States, which consume nearly one-half of the total quantity of coffee exported from all the countries of the world.

The import of coffee is inconsiderable in volume, averaging about 900,000 lbs. yearly, mainly from the Straits Settlements into Burma and from Austria-Hungary into Bombay.

Persons employed.

There were 24,477 persons returned as permanently employed, and 46,044 persons as temporarily employed on the coffee estates in 1906, the total of 70,521 persons, giving one person to about 2·8 acres. The returns for the Nilgiris district are incomplete. The figures represent the average number of daily attendances throughout the year, and cannot be taken as exact.

Prices.

Taking the declared export values to represent the prices, the variations since 1894-95 are shown in the figures appended. There has been a steady fall during the last decade except for a small recovery in 1904-05.

				Price per cwt.	Variation.
				<i>Rs. a. p.</i>	
1894-95	..	..	..	75 7 2	100
1895-96	..	..	..	75 9 0	100
1896-97	..	..	..	75 8 1	100
1897-98	..	..	..	67 8 2	89
1898-99	..	..	..	64 12 9	86
1899-1900	..	..	..	52 12 4	70
1900-01	..	..	..	49 13 7	66
1901-02	..	..	..	49 0 4	65
1902-03	..	..	..	49 1 5	65
1903-04	..	..	..	46 15 2	62
1904-05	..	..	..	50 6 2	67
1905-06	..	..	..	48 12 4	65
1906-07	..	..	..	43 11 0	58

The prices of Brazilian coffee in New York (mean of highest and lowest prices of Rio No. 7) may be compared:—

		Cents per lb. =	Rupees per cwt. (one rupee=82 cents.)	Variation.
1894-95	..	18·10	46	100
1895-96	..	12·57	44	96
1896-97	..	9·25	32	70
1897-98	..	6·20	22	48
1898-99	..	5·57	20	43
1899-1900	..	6·07	21	46
1900-01	..	7·10	25	54
1901-02	..	6·82	22	48
1902-03	..	4·82	17	37
1903-04	..	6·47	23	50
1904-05	..	7·47	26	57
1905-06	..	8·81	29	68
1906-07	..	7·81	27	59

The average price, April 1907, was 6·81 cents per pound.

† Includes imports from Aden and the Straits.

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

VOL. II.]

SEPTEMBER 1907.

[No. 8.

THE U. P. A. S. I.

(INCORPORATED.)

Popularisation of Coffee.

In a letter from Home, dated 16th July 1907, Mr. J. A. HARRIS stated that, being still in poor health, he had been unable to call, as he had intended to do, on Mr. John C. Sanderson, but he had had some correspondence with him regarding the proposed coffee propaganda.

Making special reference to the resolution passed by the Committee of the London Chamber of Commerce, Mr. Harris observed :—

I write to impress on the Association the importance of this movement, I regard it as the most momentous question with respect to coffee that the U. P. A. has had to deal with since its inauguration, and I urge that the greatest effort should be made to obtain support for it. I venture to suggest that the various Governments interested in the product in South India should be asked to subscribe, as well as the agents and curers. It should be borne in mind that though only a very small portion of the £20,000/30,000 likely to be required may be forthcoming from South India, if we only show that we are in earnest in the matter we may set the ball rolling, and be the means of inducing other countries to join. The proposed Scheme embraces coffee from all countries, the idea being, as you will have noticed, to advertise coffee generally as a beverage, not to deal with any particular class. If there be any demur to this it will no doubt be pointed out that with such funds as South India is likely to raise it would be impossible to deal with the matter on a scale that would have the least chance of attaining our objects.

P. S.—Personally, I shall be very pleased to support the Scheme, and I think Mr. Sanderson's suggestion of a cess would be much the most satisfactory way of raising funds.

Subsequently Mr. John C. SANDERSON wrote, under date 24th July 1907 :—
I have to acknowledge the receipt of your letter of the 4th July, in which you invite my attention to advance proof of matter to be published in the July number of the " Planters' Chronicle."

I note that the Honorary Secretary of the Coorg Planters' Association is at a loss to understand my reasons for asking you to furnish me with some sort of reply as quickly as possible. I made this request thinking there might be a Planters' Committee in existence who would be able at once to express an opinion upon the suggestion, so that we might have something to work upon; as things are, matters have remained in abeyance for months, so a great deal of time has been lost.

The Secretary of the London Chamber of Commerce called upon the Consuls-General of Brazil and Costa Rica, and finding they were away on a long leave, letters were addressed to them asking for an interview, and up to

the present it has been impossible to make further progress with these countries as the Vice-Consuls stated they had no power to do anything. These gentlemen—the Consuls—are expected in London shortly, when a further attempt to interview them will be made. For your information I enclose a copy of the letter.

The Secretary of the Chamber had an interview with the Consul-General for the Republic of San Salvador, and that gentleman (Mr. M. J. Kelly) has undertaken to suggest to his Government that they should contribute a sum of £1,000 per annum to any fund which may be raised on the lines suggested in the resolution passed by the Chamber.

I have had some correspondence with Mr. J. A. Harris, who, I am sorry to say, is still at Boscombe; he has promised to write you fully on the question I do not see that I can do anything more at present, until I have got some decided opinion from your Association and the Consuls of the different countries named. If the Planters would undertake to give a proportionate contribution towards any fund for the popularisation of Coffee which may be agreed upon by the Governments of the various producing countries, in connection with the Committee formed by the London Chamber of Commerce, the London Committee would undertake to see that no expenditure was made until all the countries had contributed their fair quota. I may point out that two of the gentlemen named by the South Mysore Planters' Association, *viz.*, Mr. Brooke Mockett and Mr. R. H. Elliot, attended the original meeting of the London Chamber of Commerce and Mr. Brooke Mockett was appointed a member of the Committee.

(INCLOSURE).

Draft letter from the Secretary, London Chamber of Commerce, to the Consuls-General for Brazil and Costa Rica.

A few weeks since I called at your address with the object of seeing you on the subject of a scheme to popularise the use of Coffee in the United Kingdom, but was informed that you were abroad.

The question of the relatively small scale of coffee in this country has for some time now been engaging the attention of the Coffee Trade Section of this Chamber—representing as it does the largest importers and distributors of the country—and a short while back the following resolution was passed to be subsequently endorsed by the Council:—

“That in the opinion of this Committee the time has arrived to undertake a systematic propaganda, both theoretical and practical, as to the advantages of Coffee as a beverage for the general public as has been successfully done in the case of both tea and currants, and that the Governments of the producing countries be approached to give financial assistance for the purpose.”

It was not intended that the propaganda should be confined to Great Britain but that it should include all the more important markets where the present consumption of Coffee is comparatively insignificant.

As stated in the resolution, the first and essential step to be taken is to induce the chief coffee-producing countries to become interested in the movement, both directly and by bringing the matter before the leading planters, and I should be much obliged if you would inform me, as a preliminary, whether your Government has any funds which it could properly allocate for such a purpose and whether representations could be made officially to the leading planters in Brazil in order to induce them to participate. Perhaps you would be good enough to state whether, in any case, you would be prepared to approach your Government on the subject.

It has been suggested that the best method of raising money for the purpose would perhaps be by a small cess of 1d. to 8d. per cwt. on Coffee produced in the various countries, according to production and the selling

value in European markets. I might add that there is little doubt that India interests would be prepared to actively support any scheme which may be decided upon, considering the urgency of the matter.

I feel sure that your Government will recognise the necessity of something being done in the near future and I trust that the above suggestion will receive favourable consideration.

The subject referred to above was discussed at length during the Annual Meeting of the U. P. A. S. I., and the resolution that was adopted will be found on another page. Mr. Sanderson has been communicated with, and when he gives the word the necessary application will be made to Government.

Madras Planters' Labour Act, 1903.

A few days before the Annual Meeting opened the following letter, dated 10th August 1907, was received from the Chief Secretary to the Government of Madras :—

I am directed to address you in continuation of my letter No. 1855-1, dated 22nd March 1907, regarding the amendment of the " Madras Planters' Labour Act, 1903."

By G.O. No. 558, Judicial, dated March 28th, 1906, the Government informed the United Planters' Association of the directions in which it was proposed to consider the amendment of the Act of 1903. Since then certain further proposals have been under consideration.

These proposals will be explained *seriatim*.

- (1) *The proposal of the Association that labour contracts be executed before any two witnesses.*

There are objections to the proposal in view of the difficulty of finding the witnesses in case of a dispute as to the validity of the contract, and it may be argued that as every village possesses a village magistrate, it is sufficient to provide for execution before that officer which would be more satisfactory as securing an official authentication. But in any case if the proposal of the Association were finally adopted, it could only be on the condition that one of the witnesses was nominated by the labourer and that the labourer should have the option of requiring the contract to be executed before a magistrate.

- (2) *The proposed amendment of Section 29 of the Act referred to in the letter No. 1855-1 dated March 22nd, 1907, from this Government to the United Planters' Association.*

On this proposal it is understood that the Association intends to address the Government.

- (3) *The proposal to amend Section 35 of the Act.*

As it stands, this section provides that a convicted maistry or labourer may, on the expiry of his sentence, be directed to complete the performance of his contract "on pain of further prosecution and imprisonment." This has been interpreted to mean that the offender—whether maistry or labourer—may, in all circumstances, if he continues to fail to perform his contract be again prosecuted and sentenced to imprisonment and that such prosecutions and punishments can continue indefinitely until the contract is finally completed. So far as the labourer is concerned, the object is to compel him to work out his contract, subject to certain exceptions and conditions. The section therefore does not seem to be open to objection so far as the labourer is concerned.

But as regards the maistry or sub-maistry other considerations arise. As the Act stands, the maistry (or sub-maistry) is liable, under Section 35, to be called on to complete his contract when convicted of any offence under the Act. But a maistry may be convicted under Sections of the Act which have no relations whatever to his contract (e.g. Section 26 or 36). The original intention of the Act was that the provisions of Section 35 should apply only to convictions in connection with his contract, i.e., as expressed

in Section 35 on conviction of offences under Section 24. But it has been proposed to go further and limit the liability to the "further prosecution and imprisonment," provided by Section 85 to the first two of the events (in Section 24) namely (a) failure to present himself at the estate upon the specified date, and (b) failure to remain thereon for the specified time. It is argued that the maistry (or sub-maistry) should not be liable to imprisonment for mere failure to supply labour; nor to "further imprisonment" under Section 85 for failure to account for advances if he has been already punished criminally for the same under sub-clause (c) of Section 24, for it should be presumed that the magistrate when awarding a criminal punishment under Section 24 (c) for such failure has imposed the full *criminal* penalty for such misconduct, leaving further proceedings for recovery, if any such are needed, to be taken under the recovery provisions of the Act or in the Civil Court.

In this view Section 35 might be amended thus:—

- (1) "On the expiry of any sentence of imprisonment on a maistry, sub-maistry, or labourer—the maistry, sub-maistry, or labourer shall, if the planter or maistry or labourer so requests, be produced before the magistrate who,
 - (a) "in the case of the maistry or sub-maistry if the said maistry or sub-maistry has failed without sufficient cause to present himself at the estate upon the date specified in his contract, or having contracted to remain upon the estate for a specified time fails without sufficient cause so to remain,
 - "shall direct him to proceed forthwith to the estate if the term of the contract has not expired and to remain there till the said term has expired;
 - (b) "in the case of the labourer
 - "shall direct him to complete the performance of his contract;
 - "And if the said maistry or sub-maistry or labourer as the case may be, shall neglect or refuse to obey such direction, he shall be liable to further prosecution and imprisonment for such neglect or refusal.
 - "Provided that no such direction shall be given in the case of a labourer if more than 12 months have elapsed since the date on which his original labour contract would have determined.
- (2) "No conviction under this Act or imprisonment under such conviction shall have the effect of releasing any maistry, sub-maistry, or labourer from the terms of his contract or labour contract as the case may be."

At the same time an alternative proposal has been made which would have the effect of omitting the maistry altogether from Section 35. The Act specifically imposes criminal consequences on a maistry in connection with breach of his contract as just explained, only in the events set out in Section 24. And it has been urged that even in the two events—failure to present himself upon the estate and failure to remain there—in which under the proposal for amendment just discussed, the maistry (or sub-maistry) would be liable to further criminal prosecution under Section 85 for continued failure, he should not be rendered liable to such further prosecution inasmuch as it appears to be of little practical use to attempt to compel to maistry by such means to remain on an estate if his labourers are not there and he is not a willing worker. It has therefore been proposed to exclude "Maistries" from the operation of Section 35 of the Act, and to put into a separate section as Section 85 A the clause of Section 85 which provides that no conviction under the Act or imprisonment thereunder shall release a maistry, sub-maistry, or labourer from his contract. The two sections would then run as follows:—

"35. On the expiry of any sentence of imprisonment on a labourer for any offence under this Act, he shall, if the planter or employer so requests, be produced before the magistrate, who shall direct such labourer to complete the performance of his contract on pain of further prosecution and punishment in case of his refusal to do so.

"Provided that no such direction shall be given, if more than twelve months have elapsed since the date on which the labourer's original labour contract would have determined."

"35. No conviction under this Act or imprisonment under such conviction shall have the effect of releasing any maistry or sub-maistry, or subject to the provisions of Section 85, the labourer from the terms of his contract or labour contract as the case may be."

"The Government will be glad to be favoured with any remarks which the United Planters' Association may have to offer on the foregoing proposals which have been made for the amendment of the Labour Act of 1903, stating explicitly their reasons for their opinion of each separate proposal."

The decision arrived at by the meeting is recorded on another page. It is perhaps desirable to explain that some of the delegates could not be made acquainted with the contents of the letter until their arrival in Bangalore, and that the representatives of the Nilgiri and Wynad Planters' Associations, though they received the letter before leaving, had neither time nor opportunity to consult with members generally prior to their departure for this station.

"The Planters' Chronicle."

During the annual meeting of the U. P. A. S. I. a small Committee was appointed to revise the original scheme for the working of this paper. The decision arrived at was that the policy adopted should be the same as hitherto. Members of District Planting Associations will continue to receive a copy of each monthly issue free of charge; and it is anticipated that the proceedings of those Associations will be sent in regularly. They will be printed for circulation among members as hitherto, and then reprinted in the *Chronicle* for general reference. Preferential rates will continue to be charged for advertisements sent in by planters who are members of District Planters' Associations. As regards rates for single copies and annual subscriptions, it is under contemplation to increase the present charges; but this is not intended to affect anyone but those who may be termed "outside" buyers and subscribers; i.e., who are not connected with any District Planters' Association.

In the coming year the *Chronicle* will be a source of income to the U. P. A. S. I., and in order that it may be placed on a thoroughly stable basis the active co-operation of all planters is solicited. Correspondence such as is common in daily newspapers would be inappropriate in a monthly magazine; but records of experiments or investigations made or of experiences in regard to special points of cultivation, etc., etc., would be of great value, and would doubtless lead to an interchange of views that would be very useful to the whole community. The subjoined paragraph, sent in about a fortnight ago, may serve to start a series of contributions of the right kind. The question with which "Nilgiri Planter" closes his remarks is a pertinent one.

Tea Packets.

"NILGIRI PLANTER" writes:—"Rutherford's Tea Planters' Note Book furnishes us with such full statistics of cost of packing cases of Tea, that it is strange that it gives no particulars regarding the cost of making up the humble one lb. lead packets of Tea. The cost of lead, wrappers and making up packets should be much the same in all Districts, but in order to arrive at the correct average cost it would be very useful if, through the medium of your valuable columns, planters in different Districts would kindly record their rates for comparison. Some Planters of course reduce the cost of these packets by the use of Tin-foil, Silver Brand metal and other cheap substitutes for the expensive sheet lead.

"Why should South of India Tea Planters not compare notes regarding rates as freely as the Ceylon planters do amongst themselves?"

THE ANNUAL MEETING, 1907.

On Monday, the 19th August 1907, the Fourteenth Annual Meeting of the U. P. A. S. I. was opened at the Mayo Hall, Bangalore, Mr. Aylmer Martin, the Chairman of the Association, presiding.

As the usual full report of the proceedings will be issued in book form it is unnecessary to give even a summary here; but for convenience of reference, the Secretary's Annual Report and certain speeches on matters of more than ordinary interest are given, as well as Dr Lehmann's remarks on "Pruning," a complete record of the resolutions that were adopted in open meeting, and a note of the result of the election of office-bearers for the year 1907-08.

Annual Report, 1906-07.

During the year that closed on the 31st July 1907, the membership roll of the Association was lengthened by the addition of the Mundakayam Rubber Planters' Association. There were several changes in the Executive. The Chairman appointed last August, Mr. J. A. Harris, was compelled by ill-health to tender his resignation last February and to proceed to England for a change. From the 1st March 1907, the duties of the chairmanship devolved upon the Vice-Chairman, Mr. Aylmer F. Martin. Throughout the year the Hon'ble Mr. H. P. Hodgson continued to represent the Association on the Legislative Council of Fort St. George, and Mr. John C. Sanderson on the London Chamber of Commerce. Mr. W. H. Sprott resigned his Councillorship in March last, as he was proceeding Home. For the same reason the Association's delegate to the Indian Tea Cess Committee, Mr. George Romilly, had resigned in the preceding January. Mr. P. R. Buchanan was nominated as his successor and was appointed by the Government of India in March, 1907. He has not yet taken up his new duties, however, as he has been absent from India.

It may be mentioned here that Mr. T. F. Main, Assistant Inspector-General of Agriculture, visited some of the chief coffee and pepper growing districts of Southern India in the early part of the year 1907 for the purpose of studying the conditions of the cultivation of these crops, and obtaining such local information as will enable the experts of the Agricultural Department to endeavour to help these industries both in Madras and Mysore as regards insect pests and plant diseases. This Association and several of the District Planting Associations did what lay in their power to facilitate Mr. Main's investigations.

One of the most notable items in the work of the U. P. A. S. I. during the official year that closed on the 31st July, 1907, was the founding and publication of the *Planters' Chronicle*, a monthly magazine, the first number of which made its appearance in September, 1906. Further reference to this little paper will be made later in this report; mention of it is made here as the report itself can be condensed because the chief occurrences of the year have been noted from time to time in the *Chronicle*. Members of District Planting Associations have thus been afforded an opportunity of keeping in fairly close touch with the work of the U. P. A. S. I. as well as with that of every District Association.

At the annual meeting last year many subjects were discussed and various resolutions adopted. Some of these call for brief remark.

Mysore Rubber Conference.—It is unnecessary to refer in detail to the proceedings at the conference, which was held in August, 1906. There was a friendly discussion, and the Dewan of Mysore lent a willing ear to the representations made to him. As a consequence, new regulations were issued at a later date by the Mysore Government, and on paper these seemed satisfactory. In the working, however, they have been found defective, and have been exposed to severe criticism.

Commission on Money Orders.—With reference to the resolution on this subject adopted last year, the Director-General of the Post Office in India wrote that he had "nothing further to add at present to his former letter."

The opinions of various Chambers of Commerce and Trades Associations have been taken, and some support has been gained for the representations of this Association. But a few important representative bodies still hold back.

Remission of Assessment.—In an order dated 28th January, 1907, the Government of Madras sanctioned, as a matter of grace, the remission of rent for three years on the lands cultivated with Rubber on the Anamalais, while reserving liberty to cancel or alter this concession at any time.

Adulteration of Coffee.—Mr. John C. Sanderson, the representative of the Association on the London Chamber of Commerce, has displayed great energy in regard to this matter, and Mr. J. D. Rees, M. P., has brought it again under the notice of the House of Commons. One result has been an expression of ministerial sympathy, which may be regarded as of an official character. Besides this, the discussion of the subject on the part of members of the London Chamber of Commerce has led to the inception of an important project, to which further reference will be made in the sequel.

Press Quotations for Coffee.—The need of periodical quotations for Indian coffee was represented to the *Madras Mail* and the *Madras Times*, and by them to Reuter's Agency. The reply was to the effect that the usual quotations for coffee could be supplied by that agency on payment of the customary subscription, and if the subscription were paid a reference would be made to the Head Office anent the request for quotations for "East Indian B."

Legislation concerning Fertilizers.—At the annual meeting of the Board of Agriculture in India last February there was a discussion on this subject. The Board arrived at the conclusion that "on the evidence submitted to it the time is not ripe for the introduction of legislation on commercial fertilizers, but recognises the desirability of maintaining a special watch over the developments which may occur in their use." By 15 votes to 8, the Board recommended that Provincial Departments of Agriculture should be prepared to undertake analyses of artificial fertilizers for private individuals, at a nominal fee, and to advise on the rate charged for them; but that such analyses should not be carried out for commercial firms or dealers.

The Anti-Tea-Duty League.—With regard to the resolution carried at the last meeting of this Association, the League explained that the wish of the Indian Tea Cess Committee was that the sum of money it had allotted should be utilised solely for an agitation against the British duty, rather than for an agitation on the Continent, and that on this account the question of Foreign Duties had not been pursued.

To the present Secretary, Mr. Stuart R. Cope, the Association is indebted for various items of information concerning the doings and the plans of this League, as well as in regard to other matters. There has been a revival of enthusiasm on the part of the League's executive. Anticipations of a further reduction in the British Import Duty on Tea last March were doomed to disappointment, but the sympathies of a large number of Members of Parliament have been enlisted, and the machinery for making further representations and securing additional support appears to be in good order once more.

Ceylon Tea Duty.—This matter has again assumed prominence, and a joint memorial has been submitted to the Government of India by the various associations in India representative of the tea-producing industry. This has passed through the customary channel, the Indian Tea Association (Calcutta), which is in full accord with the aims of the memorialists. What has been now asked is that the question raised by producers in India shall be referred to the Secretary of State for India in order that he may place it before the Secretary of State for the Colonies and endeavour to obtain a reconsideration of the earlier decision that Indian teas imported into Ceylon shall be heavily penalised while Ceylon teas are admitted into India on payment of an impost that may be described as merely nominal in its incidence.

Scientific Officer } These matters may be conveniently taken together, as
Experiment Farm. } the one scheme must be regarded as an alternative to the other. At the last annual meeting a special sub-committee was appointed to inquire into both subjects, and as a consequence a fair amount of financial assistance has been promised by District Planting Associations. Notice has

been given of a definite resolution in respect to proposed future action, and the Scientific Officer scheme will come up for further consideration at the present meeting.

Madras Planters' Labour Law.—Certain amendments to the Madras Planters' Labour Act, 1908, were proposed by this Association. Government have not refused to adopt these; they may indeed be said to have expressed a conditional willingness to accept them; but the condition is one that calls for consideration at the present meeting. The Government observe that it had been pointed out to them that throughout the Act where exceptional remedies are given to the employer against the employee, care has been taken to give the employee a similar remedy against his employer and that, if the planter is to be allowed to prosecute the labourer for desertion, it is but reasonable that the labourer should be allowed, under section 21, to recover from the planter wages wrongfully withheld by his employer (*i.e.*, the maistry) and under section 18 to absent himself from his work without forfeiting his wages to prefer any complaint he has to make against the planter. The Governor in Council was inclined to agree with this view; but before finally adopting the suggestion invited the Association to state whether it would prefer to give up the amendment of section 29 or to approve such amendment with the reciprocal obligation suggested above. One of the District Planters' Associations concerned has specially requested that a decision on this point be deferred until the matter has been considered at the present meeting; and this has been intimated to the Government of Madras. Since then—within the last week—that Government has submitted for consideration certain alternative amendments of the Act, in regard to which it has asked for remarks.

Roads and Communications.—The reply of the Governor of Madras to the reference made on the subject of the Theni Bridge is regarded by the Association interested in the matter as unsatisfactory, and this subject also is to be brought forward again for further consideration.

Vellera Mulla Road.—In November 1906, the Government of Madras intimated that a special grant had been made to the District Board of Malabar in aid of this and other roads, for expenditure in 1907-08.

Railways in Planting Districts.—The South Mysore Planters' Association has given notice of a resolution in respect to the Arsikere-Mangalore Railway project.

On turning from the records of action taken, and its results, in respect of earlier resolutions to a consideration of what may be classified as "new business" two subjects assume special prominence.

Popularisation of Coffee.—A project that has been suggested from London has elicited a great deal of correspondence during the year. As the project itself is merely in embryo, and as some of the references to it are of a confidential character, a general outline may perhaps be best given by means of the following extract from a letter addressed by the Secretary of the London Chamber of Commerce to the Consuls-General in the United Kingdom for Brazil and Costa Rica:

"The question of the relatively small sale of coffee in this country has for some time now been engaging the attention of the Coffee Trade Section of this Chamber . . . and a short while back the following resolution was passed, to be subsequently endorsed by the Council:—

"That in the opinion of this Committee the time has arrived to
 "undertake a systematic propaganda, both theoretical and practical,
 "as to the advantages of Coffee as a beverage for the general public
 "as has been successfully done in the case of both tea and currants,
 "and that the Governments of the producing countries be approached
 "to give financial assistance for the purpose."

"It was intended that the propaganda should not be confined to Great Britain but that it should include all the more important markets where the present consumption of Coffee is comparatively insignificant. As stated

in the resolution, the first and essential step to be taken is to induce the chief Coffee-producing countries to become interested in the movement.

"It has been suggested that the best method of raising money for the purpose would perhaps be by a small cess of 1d. to 3d. per cwt. on coffee produced in the various countries according to production and the selling values in European markets."

"*The Planters' Chronicle*."—This little monthly publication has now been running for a year, and the financial statement that is laid before the meeting shows that the cost has been kept well within the estimates, though the paper has been very much more comprehensive than the original scheme anticipated. Instead of being an 8 page paper the *Chronicle* has ranged from a minimum of 18 pp. to a maximum of 36 pp. (exclusive of advertisements). Even now there are matters omitted which the Secretary would desire to place "on file," if financial considerations permitted, and he ventures to suggest the desirability of revising the original scheme during the course of the present meeting.

Abyssinian Coffee.—Some coffee seed from Abyssinia was received by the Government of Madras during the year, a portion being intended for distribution in Mysore. Various applications made through this Association were complied with, as far as possible, and the recipients of the seed will doubtless report progress from time to time.

Before the year's accounts are referred to, a few words must be said regarding.

The Failure of Arbuthnot & Co.—As the bankers of this Association, as the financiers of a large number of estates and owners of others, as proprietors of coffee-curing works, and in various other ways the old established firm that collapsed last October had the most intimate relations with the planting industry of Southern India. Its downfall was a calamity, and the effects have been far-reaching. With the authority of the Association, the Secretary attended some of the meetings of creditors, but he soon arrived at the conclusion that it was mere waste of money to continue this procedure. There appears to be absolutely nothing to be done but to await the course of events. Proof has been submitted of the Association's claim against the insolvents' estate, amounting to Rs.17,428-2-7, and it may be said that the Reserve Fund of the U. P. A. S. I. has disappeared. The funds in bankers' hands that were needed for current purposes were small, and District Planting Associations having responded with admirable promptitude to a request for early payment of subscriptions the income, though depleted, has sufficed to cover expenditure, increased though the latter was in some respects by unforeseen outlay.

Accounts.—The statement laid before you will probably be considered, under the circumstances, a satisfactory one. As a rule, little comment is necessary, but this year a few words of special explanation appear to be called for. Including out of the balance brought forward from 1905-06, Rs.865-2-4 (the remaining Rs.1,000 having been paid to the Reserve fund) the total Income amounted to Rs.4,794-0-8, in which is included the gross income of *The Planters' Chronicle*. Expenditure (inclusive of the loss incurred in current account with Messrs. Arbuthnot & Co., except so far as this affected the Reserve Fund) totalled Rs.4,380-14-8, in which sum the gross expenses of the *Chronicle* are included. The balance carried forward to the new year is, therefore Rs.463-2-0.

Putting aside the figures relating to the *Chronicle*, except the *nett* cost of publication, and the abnormal loss and outlay consequent on the failure of the firm mentioned above, the expenditure under ordinary heads was Rs.3,440-13-7, against an actual income (exclusive of the balance brought forward at the beginning of the year) of Rs.3,405-14-4.

The "budget" for 1906-07 compares with "actuals" as follows.—

	Estimated.	Actual.
Income ...	Rs.5,470 2 4	Rs.5,271 0 8
Expenditure ...	Rs.3,800 0 0	Rs.3,807 14 8

The figures here given as "actual" expenditure differ from those set down in the preceding paragraphs, because here, as in the estimates, the *nett* cost of

publishing the *Chronicle* has been reckoned. It will be seen that the actual outlay has practically tallied with the estimate in spite of the abnormal expenses to which reference has been made above.

The Balance Sheet shows a credit balance of Rs.1,058-2-0, apart from the Association's claim on the estate of Messrs. Arbuthnot & Co. This claim is noted as a "contingent asset," and no reliable estimate of its value can be made at present.

In conclusion, I beg to tender my resignation of the Secretaryship.

The Chairman's Address.

Mr. AYLMER MARTIN, in his opening address, said:—

GENTLEMEN,—The most painful duty that has ever befallen any Chairman of this Association, falls to my lot to-day, in having to allude to the great failure of the once great firm of Arbuthnot and Co. The firm was a good friend to planters, and its support was, in some quarters, almost looked upon as essential to our industry. The withdrawal of this support, by its suddenness, has been a public calamity, affecting to some extent the whole of the Madras Presidency. We cannot but place on record the deep regret we feel at the disaster. As an Association, we have ourselves lost all our funds. Our very existence for the future depends upon the result of our deliberations at this Session. The interest on our funded reserve, has hitherto been used to meet part of our current expenditure. This we no longer possess. It was pointed out at our meeting last year, that our financial position was not sound; we are in the same position to-day, minus Rs.17,400. I have no doubt that our recuperative powers are sufficient to keep us going, until time and opportunity permit us to regain what we have lost, but this will never be done if we do not resolutely set ourselves to the task, and the time to begin is—now.

Since our last meeting, Mr. Beauchamp, the late editor of the *Madras Mail*, has died. I know I am only voicing the feeling of every planter in S. India, when I place on record our deep sorrow for the sad event.

Tea planters especially, and planters in general, are sorry that Dr. Harold Mann's services are no longer available to the industry directly. The valuable work he has done for us in the past has been much appreciated. We wish him every success in his new sphere of action, where his services will still benefit the cause of agriculture.

Some sort of statement seems to be expected from the Chairman of the Association, referring to our staple products. It seems rather superfluous, for the daily Press informs the world intelligently and accurately of all that concern us and our markets, but—not liking to break with tradition—I offer the following brief remarks:—While the price of coffee has shown improvement, the short crops in some of our Districts, and the enormous and unprecedented crop of coffee in Brazil, have been adverse factors; we have undoubtedly been saved from a worse state of things by the Valorisation Scheme of the Brazilian Government, but we must not overlook the fact that this scheme in itself is a source of possible danger, and therefore, may ultimately have a depressing effect. Tea has done well during the year, not only owing to higher prices, due to the improved statistical position to which the reduction in the British Import Duty has contributed, but owing in most Districts to more satisfactory yields. The prices of Cardamoms, Pepper, and Cinchona have shown some improvement.

Rubber is not yet a crop producer to any extent with us, but it deserves mention, because for the first time in our history we have to welcome a delegate from a purely Rubber District. Our friends the Rubber planters (most of us are interested in Rubber, or wish we were interested in it) are our rivals in the Labour market. The more we extend the area and scope of our operations, the keener grows the knife which may cut our own throats. Our Chairman last year, Mr. Sprott, who we all hope is having a good time at home, foreshadowed a difficulty owing to the competition of other countries for labourers from Southern India. This is no further off now, and may be nearer to us than we think, so it behoves us at this meeting to concert measures to meet it, should the situation become acute.

There are some items on our Agenda paper of particular interest, and none more so to coffee planters than the proposal to work out a scheme for the Popularisation of Coffee as a beverage. I know this will have our earnest attention. Our thanks are due in this connection to Mr. John C. Sanderson, our representative on the London Chamber of Commerce, for his resourcefulness on our behalf. I only regret that we have not yet been able to give him some definite assurance of our support, an omission which we will now hasten, I hope, to make good. Mr. Rees must also be thanked for the general interest he has taken in our affairs, more particularly for his action in the matter of the scandalous extent to which the adulteration of coffee is sometimes carried before it reaches the consumer at home.

Of equal importance to tea planters are the subjects of the Indian Tea Cess, the British Import Duty, the Ceylon Duty on Tea and other closely related questions.

Of general interest to us all are certain matters impressively put before us at the time of his resignation by Mr. Harris, whose absence from this chair to-day, no one has more reason to deplore than myself. I have already alluded to some of these subjects, and among others are *Railways* and the appointment of a *Scientific Officer*, questions which we are now seriously to consider.

Dr. Lehmann will give us one of his interesting lectures to-morrow morning, and we are lucky to have secured his promise to this effect.

In conclusion, we must congratulate ourselves on the possession of the *Planters' Chronicle*, the publication of which has worked wholly for good, and for his services in conducting our periodical we owe our best thanks to Mr. Ormerod.

Popularisation of Coffee.

In regard to this matter Mr. J. G. HAMILTON (South Mysore) made the following speech:—

GENTLEMEN,—The question of doing something towards increasing the consumption of coffee is by no means a new one, but this is probably the best opportunity we have had, if not the best we shall ever have, of doing some practical work.

For some time past I and probably many others have felt that we were hampered by at least two drawbacks: one, that we are not strong enough to work against the trades which swallow up so much of the price paid by the public, and the other, that as we are almost the smallest body of coffee planters, numerically speaking, in the world and produce a quality for which we may say there is a special market, our rivals would not be likely to follow our lead. Now, the position is entirely changed; we are invited to join the trade in a general movement for the benefit of all coffees and of growers and distributors alike. The latter have the agency and the power and they have probably a great deal more knowledge of the science and method of advertising than we have, and even if they call on us to provide most of the funds it seems to me that cat and monkey will each get a share of the nuts. They are not, I presume, aiming at an increase in the second or retail prices that would put an end to everything, as the price now charged seems out of all proportion to the price we receive. I find it is possible to lay down good coffee roasted and ground and packed in good tins and sent by parcel post to England at a good price to the grower (say 70s. to 73s.) at 1s. 6d. per lb., which is less than is charged in most shops for a mixture, so I don't think there can be any idea of increasing the retail price, and therefore it must be a *bona-fide* intention of making increased profit by increasing consumption which is in the minds of the trade members of the Committee which has invited our co-operation. To gain this end, in the home market anyhow, it will be essential to provide a good article, and ours is one of the best coffees sent to England. I do not think there need be any hesitation lest in pushing coffee generally we shall benefit others at our own expense. We cannot supply the whole demand unless we give up all but the home market, for even at 1lb. per head I think that 10,000 tons would be required, which we do not send to England even in

good years. If general consumption can be increased by even $\frac{1}{2}$ -lb., room can easily be found for all, and I think that co-operation with the London trade, if honestly and efficiently carried out, should enable us to place our coffee where it is wanted and to direct other growths to markets where they are more appreciated, so that we shall avoid the present danger of the public leaving off coffee drinking because they are unable to get a quality which suits them, and have inferior stuff forced on them without a choice, even if not adulterated. I believe that our coffee to most palates is a little wanting in strength, a fault which is certainly not remedied by the admixture of chicory or even burnt, sea-damaged maize or condemned ship biscuits. From what I could gather at Home a slight addition of Costa Rica seems to be recommended by those who try to supply a *bond-fide* coffee, but there is, I think, a tendency to put in too much Costa Rica. I am speaking from experience, not out of jealousy. Being a great coffee drinker myself, I find that a trifling addition of old Liberian makes a great improvement, while anything over 25 per cent. spoils. Many friends at home knowing my tastes tried to meet them, and when not coffee drinkers got the best they could locally. The result left me no longer able to wonder why consumption is decreasing. In some cases I know that the coffee used was a *bond-fide* mixture of East Indian and Costa Rica.

This may seem to be wandering into details which might be left for future discussion, but one of my objects in speaking is to declare that there are great faults in the trade as carried on at home, which can be remedied, of which injudicious as well as fraudulent mixing is the chief, and I want to warn all planters in the most earnest manner possible against shrinking from even considerable sacrifice for a few years, if by making sacrifices there is any chance of clearing away the growing tendency to abandon the best teetotal drink in the world.

I want to protest now against any putting off a decision until we know more about the proposed scheme. If we put off until they show their hands and they put off defining a scheme until we make an effort to help them and ourselves, nothing will ever be done. The distance between us is too great to allow of any correspondence, in the intervals interest will wane, and they being the stronger and more central body their hands cannot be forced. It is we who must meet them. I appeal to all those here present and those for whom we are attempting to decide, to resolve to hazard a certain amount, leaving our interests in the hands of the U. P. A., and let us associate with the Executive out here a strong but not numerous committee of our own men at Home.

How many of us do not go on year after doing certain works and applying certain manures, and can any one of us assert that in doing so we are not speculating? Nothing in the way of agriculture can be made certain, and while empirical methods have enabled us so far to rub along, they are nothing but speculation. Now, I want the U. P. A. to demand from those we claim to represent one universal speculative experiment, holding before them the splendid example of our friends beside us and the more distant Greek merchants and planters. Let me point out one thing, there can be no doubt that an export cess is the best if not the only sensible way of collecting money. This should have a slight tendency to distribute the actual loss; we shall of course try to squeeze out a fraction more from the buyer, and he may perhaps respond a trifle to the pressure, even if not as much as we could wish. Also we are not going to pay a lump sum, crop or no crop, like we should with an acreage or voluntary cess. We shall pay strictly in accordance with our success in one direction at least, and an export cess leaves local consumption untaxed, which is as it should be. Let us foster by any and all means in our power the chances of trade which we have close at hand.

In this connection, I must express my satisfaction at seeing a note in a newspaper to the effect that one of our local companies had increased its sales by some 30 per cent.

As far as details go, I have only one remark to make in public. We should most certainly continue to press the matter of labels. If chicory growers

wish to push this stuff as a drug or a drink let them be forced to do so under their own name, instead of being allowed to make a use of our name to get rid of it, a use or abuse which is carried to an extent almost fraudulent.

In 1901, Mr. F. Clifford, speaking at a meeting of the Coffee Committee appointed by us, stated that the average consumption was—France, 4lbs. per head; Germany, 5; U. S., 8; and U. K., less than 1lb. These figures were used in 1882, when it was stated that consumption, except in England, was increasing. The *Tropical Agriculturist* of June this year has an article taken from *Tropical Life*, in which I see that the figures for 1899-1903 are given as—France, 5; Germany, 6½; U. S., 11; U. K. ¾; Austria, 2¾; and Holland, 18½. It also states that the U. S. increased consumptions last year by 86lbs per head. This probably means 8'6lbs. The figures for Austria surprise me, as I thought they would take more, but anyhow these figures generally seem to show that consumption is still slowly increasing everywhere except in the U. K., and the general consensus of opinion is that blame for this lies chiefly with the retailing part of the trade which supplies such rubbish that people will not continue drinking it at the price. Therefore that branch of the subject demands very close attention.

I hope that I have not kept you too long listening to my answers to imaginary objections which none of you intended to raise. I did myself think at first that it would be better to reserve all argument for committee, in case there should be any opposition raised to the general idea; but on second thoughts I prefer to address you, and through you the whole community, publicly. It seems to me that nothing is ever done without constant hammering, and even if it involves a lot of repetition we must, if we are going on, keep this matter before everyone without ceasing until we gain our end. Now, to put myself in order, I lay before you a resolution, but so long as the general idea goes through I attach little importance to details, and will accept any reasonable amendment.

Pruning.

On the second day Dr. A. LEHMANN addressed the meeting in regard to Pruning. He said:—

MR. CHAIRMAN AND GENTLEMEN,—The matter of pruning is, I am sure, one in which every one of you is more or less interested. The methods employed by you have undergone several modifications since planting began in India, especially in the direction as to what extent of pruning is advisable. Those of you engaged in tea planting are probably more keenly interested in this subject than anyone else. But as I know very little about tea planting and as the object for which pruning is done on tea bushes is entirely different to that in view when pruning coffee or other fruit trees, I fear that what I am going to tell you does not in any way apply to tea. In fact, it does not apply directly to coffee either, for I am simply going to tell you something about the experiments in pruning conducted at Woburn on Bush apple trees. But as all the discussions I have heard on the subject of pruning coffee are ultimately based on the practices of fruit growers at home, as we must look for guidance in our work for the most reliable experiments conducted under conditions most closely resembling our own, and as these Woburn experiments are the only systematically conducted experiments on pruning I have met with thus far, I expect that the results obtained there are not without interest to us, especially as they prove that many popular impressions in regard to pruning are not as universally true as they are claimed to be, if indeed they are not absolutely false.

But before going further I must apologise that I, a Chemist, am taking up this subject which naturally belongs to a Horticulturist. My justification is that I am deeply interested in it and think you are the same. Moreover I had a little local reputation and a lot of experience in pruning apple trees some time before coming to India, and after all an Agricultural Chemist is not a pure Chemist and is supposed to know almost as much about Physiological Botany as about Chemistry, and as pruning is undoubtedly a subject coming within the range of Physiological Botany I am after all not poaching.

The experiments in pruning were begun at Woburn nearly thirteen years ago, and some of the results were published in their fifth annual report and created no little stir among fruit growers. A synopsis of these results, together with some of the results obtained since then, has been published this year in their seventh Report, a concise small volume published by Eyre and Spottiswoode and sold for 1s. 6d.

So far as the effect of pruning on normal well growing trees is concerned, the experiments may be divided into two sets. The first of these was conducted with eleven plots, having six trees each, and consisted in pruning the eleven plots differently. In this considerable variations existed between the individual trees owing to the individuality of the trees and other factors beyond the control of the experimentors. To overcome these as much as possible the second series was conducted with individual branches of the same size on the same tree. The averages of both sets of experiments agree very well and indicate that the less a healthy actively growing tree is pruned the better the growth of the tree and the larger the yield of fruit. The size of fruit was but slightly affected by pruning, the apples growing on the heavily bearing unpruned trees being almost as large as the small crops on the heavily pruned trees.

In the experiments conducted with individual trees the extent of wood formation was determined by measuring the height, the spread of the tree, and the circumference of the trunk and the larger branches. Taking the trees pruned in the usual way, that is, cutting back the leaders to about one-half of their length and the side growth (except where extension was required to form new branches) to four or five inches, as the standard, the average results of the unpruned trees showed an increase of 7 per cent, over the normal. In the heavily pruned trees, those in which the leaders were reduced by two-thirds of their length and the side growths (except where extensions was required) were shortened to one or two inches, the average size of the trees as determined by measure was 18 per cent. below the normal. Last year it was found necessary to cut out every alternate tree. Those trees, stem, branches and all the roots within 18 inches of the stem, were weighed, with the result that unpruned trees were 19 per cent, heavily pruned trees 16 per cent. lighter. The crop of apples from these trees showed a much greater difference in favour of not pruning than the weight and size of the trees had done. During the first period of five years the average crop from the unpruned trees was nearly 120 per cent. greater than that from those pruned in the ordinary way and those from the heavily pruned trees was 25 per cent. less. During the second quinquennium the results were somewhat similar, the unpruned trees giving 100 per cent. more and the heavily pruned trees over 50 per cent. less than the standard. In the last year's results, which are, however, not strictly comparable with the others, the difference were much greater, being 194 per cent. in favour of the unpruned when compared with the standard, and the heavily pruned being more than 97 per cent below the standard.

On the average of the ten years the apples from the unpruned trees were only 4 per cent. smaller than those picked from the trees pruned in the ordinary way, and those from the heavily pruned trees were 18 per cent. larger than that standard. In other words, if a certain number of average size apples from the standard trees weighed 100-oz. the same number of average sized apples from the unpruned trees would weigh 96-oz. and from heavily pruned trees 118-oz. Last year, however, the apples from both the unpruned and heavily pruned trees were slightly smaller than those borne by the trees pruned in the usual way.

The above set of experiments was conducted with four varieties of apples, differing considerably in their general characteristics. In another experiment on somewhat similar lines eight trees, each of 117 varieties, were used. In these were no unpruned trees, but the heavily pruned trees gave on an average 71 per cent. less crop than those pruned in the ordinary way. To show what wrong conclusions may be drawn from isolated small experiments I may mention that notwithstanding that the experiment, taken as a whole, is so

very striking, there were eleven instances in which the heavily pruned trees bore heavier crops than those not pruned as heavily.

The second set of experiments were on a smaller scale, but the results were very uniform and therefore very convincing. For each experiment four branches of exactly the same thickness, 36 inches long, were selected on the same trees. Three of these were cut back to 6 inches, 12 inches and 24 inches, respectively. The fourth had simply the terminal bud removed. It would lead too far to give even a brief outline of the principal results of these experiments given in the report. It must suffice to say that at the end of the season the branches were removed and weighed, and that together with the lateral branches formed on them their average weights were not very far short of being in direct proportion to the length of the branches left on the trees. Taking the weight of the branch cut back to 6 inches as being represented by 100, the 12 inch branch weighed 179, the 24 inches branch 310, and the unpruned branch 562. As regards the number of fruit buds on these branches, the regularity of the proportion was even more striking. The following were the averages.—

	in.	in.	in.	in.
Branches pruned back to...	6	12	24	36
Relative number of buds...	100	193	400	547

This regularity might suggest possibly that the pruning of a certain branch affects the tree as a whole and not only the individual branch which has been pruned, that therefore the weight of the branches and the fruit buds formed would be approximately in proportion to the surface of the branch. Whether such is really the case or not I am unable to say definitely. But the fact that the number and size of side branches formed on these differently pruned branches did not vary in the same proportion; that there were marked differences in the size and number of the side branches on the 6 inch just below the point at which these differently pruned branches joined the remainder on the tree; and that there was a decided difference in the increase of girth of those 6 inches, all point in the direction that the pruning has a decided local effect. The behaviour of Spike disease in Sandal and a number of other observed facts tend to point in the same direction. Besides this the fact that one set of experiments corroborates the others makes them both much more valuable than they otherwise would be.

If the results of these experiments with apple trees are of general application, many deep rooted convictions in regard to pruning must be abandoned. Possibly they have arisen by applying to healthy well-established actively growing normal fruit trees the beneficial results which doubtless follow the judicious application of the knife to sickly, stunted or newly transplanted trees. It appears to me quite reasonable to heavily prune a tree which has lost most of its feeding roots. The balance between roots and top has been disturbed, and until that is restored the tree is in an unhealthy condition. In extreme cases the loss of a portion of the roots will lead to very premature or excessive fruit formation which will either cripple or kill the tree, and the general practice of heavily pruning a tree when transplanted, which prevents, for one thing, the unhealthy tendency to fruit formation, is evidently sound in principle. At any rate, the results of the Woburn experiments show that it is decidedly beneficial to prune a newly transplanted tree before growth begins.

The results of some of the other experiments are that, with fully grown trees, in which very little if any branch formation takes place, heavy pruning tends to new branch formation at the expense of fruit production. With trees in vigorous growth pruning of the branches results, as we have seen, in both a reduced wood formation and reduced crop of fruit. Root pruning tends to an abnormal and often unhealthy fruit formation.

To heavily prune the branches of a healthy fruit tree and to compensate for this by root pruning as is sometimes done, appears to me as rational as robbing a man of his money in the hope that that will make him rich.

Railways in Planting Districts.

On the fourth day there was an interesting discussion in this subject, with special reference to the

ARSIKERE-MANGALORE PROJECT.

The Hon'ble Mr. A. Williams, British Resident in Mysore was present and spoke in Committee, as also did Mr. W. J. Eales, Managing Director of the New Mysore Manganese Company, Ltd. Subsequently, in open meeting, Mr. W. L. CRAWFORD (South Mysore) spoke to the following effect:—

MR. CHAIRMAN AND GENTLEMAN,—The matter of the proposed Arsikere-Mangalore Railway has several times been brought before you during the past thirteen years, and to-day your help will again be asked to pass the resolution I am going to move on behalf of the S. M. P. A. and to once again urge upon the Government concerned the necessity there exists for the immediate construction of this long desired line, froming as it would the natural outlet from Mysore to the West Coast. In asking your cordial support I cannot do better than once again bring forward many of the old cogent arguments that still exist and some new and powerful ones that many now be used and which I may state have already been forwarded by my Association to the Government of Mysore and are as follows:—

1. The utility of the line has been admitted.
2. The survey has been completed at considerable cost, and no engineering difficulties have been encountered.
3. Mangalore is geographically the Port of Mysore and always has been, and the proposed line will form the nearest and most direct route from all parts of of Mysore to the West Coast.
4. The growing prosperity of Mysore demands railway communication with the West Coast by the most direct route, as rapid and cheap transport increases trade and business of all kinds. At present it does not pay to export many products easily grown in Mysore, owing to the cost of freight in country carts being prohibitive. With a Railway this would be changed, and a fair profit would remain to the cultivator after paying freight.
5. Already two-thirds of the total value of the Mangalore exports and imports represent Mysore property. With cheap and rapid communication with that Port I have no hesitation in saying this would in less than five years be more than doubled (1905-06 Imports Rs.70,97,190, Exports Rs.14,24,82,280).
6. The rapid development of the Mineral wealth of Mysore alone demands that the construction of the Arsikere-Mangalore Railway be taken in hand without delay, seeing there are estimated at present to be over a million tons of fine Manganese ore in sight on the various mines working in the Province which as yet hardly have been opened, and it is not too much to say that the prospect is for four times that amount being ultimately exported; to say nothing of new fields being discovered and other minerals, such as Chrome, Asbestos, Mica, Magnetite, etc., yet to be developed, all of which it is permissible to believe would be exported by the nearest route to the West Coast—that is, Mangalore. At present this all goes to form freight to Railways outside the Province and exports to a Foreign Port, instead of forming freight for a Mysore State Railway and exports for a British Port.
7. It should never be lost sight of that Railways are a direct insurance against famine, and the whole cost of the proposed Railway is considerably less than the amount vainly spent on famine-relief by the Government of Mysore during the famine of 1877-78, and further that Railways are always instrumental in creating traffic for themselves, more especially when passing through countries which contain many industries and minerals capable of expansion and development. As an instance of this I would mention the Birur-Shimoga Railway extension, which at first showed little prospect of paying its way, but, indirectly, is the real cause of the present activity in the Shimoga Manganese Mining industry, as without it the export of the ore would practically have been impossible owing to the prohibitive cost of cartage to the Railway.

As far back as 1892 the S. M. P. A. strongly represented to the Government of H. H. the Maharaja of Mysore the need there was for this line and the

likelihood of its proving a commercial success, and subsequent to that date it has again and again been brought to the notice of the Governments concerned, with the result that two surveys have been made and very favourably reported on by the Officers deputed to carry out the work and this railway was ultimately placed No. 7 on the list of lines to be constructed, but in spite of this we have had the mortification of seeing the project shelved in an almost unaccountable manner. I am forced to this opinion as there can be no doubt that the attitude of the Governments concerned throughout has been sympathetic to the construction of the Arsikere-Mangalore line, but it would seem to the onlooker that the vested interests of rival lines and ports have so far been strong enough to defeat the project being carried to a successful issue.

All those interested in the prosperity of Mysore and Coorg must have noted with pleasure Section 20 in the recent despatch from the Railway Board anent the redistribution of Railways in South India, as in this Section the following occurred:—"The demands of Mangalore, Coorg and the Planting Districts which would be served by a line from the Southern Mahratta Railway at Arsikere to Mangalore, will have to be met at no distant date, with the result of introducing the metre-gauge on the West Coast, when it will compete with the broad-gauge for the right to extend beyond Mangalore." In view of this, I think you will agree with me that everyone interested in the proposed line should spare no effort to get the matter carried through as early as possible, as we have already patiently waited for nearly twenty years.

It has been urged that this line if constructed as a metre-gauge would pay only 1 per cent. on the invested capital, but I venture to point out that since these statistics as to the earning capacity of the line were compiled eleven years ago, there has been a very marked alteration for the better in the prosperity of the people who would be mostly served by it, and during the past few years there have been very large discoveries of manganese and other valuable minerals in fairly close proximity to the proposed Arsikere-Mangalore line, the export of all of which would find its way over this line, as it would offer the shortest and quickest route to the coast.

In conclusion, I would point out to the Coorg delegates that the Mysore-Hassan extension of the Mysore State Railway, which I understand is shortly to be constructed, will pass close to the Coorg frontier, and it is reasonable to think those in charge of the survey would take the line along the countries offering the largest traffic, and as South Coorg has made out a strong case and can show such a large amount of traffic to and from the West Coast, they will undoubtedly take the line as near Coorg as possible.

The proposed Arsikere-Mangalore line will pass through Hassan, and so if constructed will place Coorg also practically in direct communication with the West Coast by rail, and for this reason I would ask the Coorg delegates to cordially co-operate and uphold my Association in this matter.

[It may be stated that the delegates from North Mysore and Coorg gave the fullest possible support to the project referred to in the above speech.]

Rubber Lands in Mysore.

Mr. LAMB (South Mysore) made the following speech:—

MR. CHAIRMAN AND GENTLEMAN,—As has been mentioned in the Secretary's report, you are all aware that after our annual meeting last year there was a Conference held with the Mysore Government on rubber lands in Mysore, and to this Conference you sent Mr. H. M. Knight as this Association's delegate. I very much regret that Mr. Knight is not here to-day to report on what transpired. I may say, however, that we all left the Conference much impressed with the friendly spirit in which our views were accepted, and held very rosy views as to the future of rubber in Mysore. We were promised land in 500 acre blocks on special terms, and we left for our various districts to hunt (those of us who had not by then already decided on the land we thought suitable) for the land we thought best suited for rubber cultivation. From that time to date I am unaware of any planter having been granted a 500 acre block. Various lands were applied for, and such difficulties were placed in the way by the Departments concerned that planters despaired of ever getting a single acre.

After the very generous way our representations had been met at the Rubber Conference you will hardly be surprised that our hopes for rubber in Mysore sank to zero.

In February of this year the Dewan of Mysore was on tour in the Province and was met by deputations from the Planting Districts of North and South Mysore. I cannot speak for what transpired at the meeting with the North Mysore deputation, but when the Dewan met our South Mysore representatives we were given a most patient hearing. The Government position was explained in a most courteous manner, and after a very lengthy discussion, the Dewan admitted our contention that if the capabilities of Mysore in the way of rubber cultivation were to be fully tested, especially with reference to Pará, it was absolutely essential that blocks of evergreen forest would have to be granted. The Dewan indeed went further and stated that, as a general principle, it might be accepted that the Government of H. H. the Maharaja of Mysore would grant blocks of 200 acres of evergreen forest in various likely districts to planters of experience and ability, to determine once and for all whether Pará was at all suitable for the planting districts of Mysore. Further he gave there and then orders that a grant of 200 acres be given to one of our members from a block of forest that had been classed as "Government reserve." As you can imagine, our hopes again rose. We believed that we were at last to be allowed to give this branch of our industry a fair trial.

Gentlemen, I am extremely sorry to have to inform you that our prospects with regard to rubber land have in no way altered, nothing further has been done in the way of redeeming the promises made by the Government of Mysore. As far as 200 acre or 500 acre blocks are concerned, we might as well have never heard of them. All the land that is at all suitable for the cultivation of the Pará rubber especially has been put into Government reserve forest and, as one of our members remarked, "We might, if such a place could be discovered, be granted a 500 acre block of pure slab rock, but if a bit of moss or a single shrub were discovered growing thereon it would be useless applying for it as it, would immediately be classed as 'Reserve Forest.'"

Of course, this is an exaggerated picture, but it describes the feeling left in the mind of our brother planters, and which I have heard even still more forcibly expressed.

Now, Gentlemen, the Government of H. H. the Maharaja of Mysore has always treated the planting community in a very generous manner, and we are very averse to believe that in this instance they have deliberately gone back on their promises. We have in the Dewan a most sympathetic friend who has done much for the planting community, and my brother planters have been forced to the conclusion that there are influences within the departments of Government concerned, which are being deliberately used to thwart the intentions of Government towards us and make the Government promises invalid. We are in a most unfortunate position, as our opportunity of participating in the remarkable boom that has sprung up is fast slipping away, and I have been asked to lay this matter before you to pass the following resolution. [The resolution is given elsewhere.]

Finance.

Financial questions were discussed in Committee, as usual, but it was resolved in open meeting that the Association's current banking account be with the Bank of Madras. An account has since been opened in the name of the U. P. A. S. I. with the Bangalore Branch of that Bank.

Election of Office-Bearers.

The following officers were elected for the ensuing year :—

Chairman.—Mr. C. E. Abbott (Wynaad).

Vice-Chairman.—Mr. J. G. Hamilton (South Mysore).

Planting Member.—Hon'ble Mr. H. P. Hodgson.

Secretary.—Mr. Harry Ormerod.

Messrs. Ronaldson and Ronaldson, of Madras, were re-appointed Auditors.

Resolutions

ADOPTED AT THE ANNUAL MEETING OF THE U. P. A. S. I.

No 1 - Dr. H. H. Mann.

That this Association wishes to cordially thank Dr. H. H. Mann for all the scientific work that he has carried out to the immense benefit of the Tea Industry, and especially for the courteous attention that he has always given to matters referred to him by individual planters in South India.

Carried unanimously.

No 2 - British Import Duty on Tea.

That this Association regrets that the Home Government have made no further reduction in the Tea Duty this year, and earnestly hopes that the other penny of the War Tax, at least, will be removed in the next Budget.

Carried unanimously.

No 3 - Ceylon Import Duty on Tea.

That this Association continue the agitation for the removal of the Ceylon Import Duty on Tea on the lines indicated by the Indian Tea Association in their letter to the Secretary to the Government of India, Department of Commerce and Industry, dated the 28th June, 1906.

Carried unanimously.

No 4 - Popularisation of Coffee.

That this Association cordially accepts the offer laid before it by Mr. J. C. Sanderson and should the support of the different countries named be obtained is prepared to address the Government with a request that, within the limits proposed by Mr. Sanderson, a cess, similar to the Tea Cess, be levied on all Coffee exported and the proceeds devoted to the campaign for the popularisation of Coffee.

Carried unanimously.

No 5.

That the gist of Mr. Hamilton's resolution be intimated to Mr. Sanderson by telegram and in the event of an assurance being received from him that the campaign will be started, the U. P. A. S. I. is authorised to address Government at once on the subject of imposing the Coffee Cess.

Carried unanimously.

No 6.

That Messrs. R. H. Elliot, Brooke Mockett, J. T. F. Wilson and W. H. Sprott be requested to consult with Mr. Sanderson in the formulation of any scheme proposed by the London Chamber of Commerce.

Carried unanimously.

No 7 - Mr. J. D. Rees, M. P.

That a cordial vote of thanks is passed to Mr. J. D. Rees, M. P., for his services on planters' behalf in the matter of Coffee Adulteration and that this Association trusts he will continue his kind efforts in this direction.

Carried unanimously.

No 8 - Press Quotations for Coffee.

That this Association communicate with the Editors of the *Madras Mail* and the *Madras Times* with a view to their giving quotations of "East Indian B," in place of "Fair Rio No. 7," as the latter is of no particular interest to planters. The quotations are not required for the exclusive use of the Association, but planters would like to see this quotation in particular appearing in the daily papers.

Carried unanimously.

No 9 - Guaranteed Analyses of Fertilisers.

That this Association is glad to notice that yearly more firms are giving guaranteed analyses of manures, and again urges planters to give support to those firms doing so.

Carried unanimously.

No 10—The Scientific Officer Scheme.

That in view of the valuable financial support promised by the various South India Associations who have reported on the matter and the urgent need of a Scientific Officer to advise and help the various branches of the planting industry in South India, the U. P. A. S. I. do approach the various Governments for financial assistance to enable the project to be carried through at an early date.

Carried unanimously.

No 11.

That should the Governments applied to consent to give financial support to the scheme the Council of the U. P. A. S. I. are empowered to proceed with any arrangements that may be necessary for the engagement of a Scientific Officer.

Carried unanimously.

No 12.

That the Government of Madras be requested to lend a properly qualified officer to carry out the necessary work entirely under the control of the U. P. A. S. I. for three years, and that after ascertaining how much assistance can be obtained from the Imperial and Mysore Governments and planters themselves the sum so collected be tendered as a contribution towards the outlay.

Carried unanimously.

No 13.

That for the first year the Hony. Secretaries of the Subscribing Associations be the Advisory Committee to carry out this scheme, and that the Secretary of the Committee be the Secretary of the U. P. A. S. I.

Carried unanimously.

No 14—The Central Agricultural Committee.

That this Association thank Mr. L. E. Kirwan for having represented the U. P. A. S. I. on the Central Agricultural Committee.

Carried unanimously.

No 15—Insect Pests.

That we thank Mr. Hodgson for having brought this pest to our notice, and we hope that local Associations will give any further information they can to the Secretary, U. P. A. S. I.

Carried unanimously.

No 16—Indian Tea for India.

That this Association recommends that the scheme set forth in Vijiam & Co.'s letter which has now been given publicity be circulated to the District Associations.

Carried unanimously.

No 17—Indian Tea Cess.

That this Association wishes strongly to support the view that the Indian Tea Cess levied under provisions of Act IX. of 1902, should be continued for another 5 years from the 31st March, 1908, at which date the period for which it was levied will come to an end.

Carried unanimously.

No 18—Weights and Measures.

That the resolution passed last year be re-affirmed.

Carried unanimously.

No 19—Rubber Lands in Mysore.

That this Association notes with regret the very unsatisfactory position of prospective rubber planters in Mysore and trusts that the Government of that State will see their way at an early date to remove the disabilities under which the rubber planting industry is at present labouring.

Carried unanimously.

No 20—Arsikere-Mangalore Railway.

That in view of the material increase in the prosperity of the province of Mysore and South Canara and the great development of commerce and of the mineral resources of Mysore and the fact that the haulage of these minerals

would put an entirely new and favourable complexion on the dividend-yielding capacity of the proposed Arsikere-Mangalore extension, forming as it would the most direct route to the Coast, this Association considers that it is an opportune time to bring to the notice of the Government of India and the Government of Mysore the necessity of the early construction of this most important line.

Carried unanimously.

No 21—Labour Recruiting and Emigration.

That this Association requests the Hon'ble Mr. Hodgson and Mr. Aylmer Martin to interview informally members of the Madras Government and give them the information in our possession about Labour Recruiting and Emigration and gives full power to those two gentlemen to adopt such measures for the protection of the interests of planters in South India as seem to them advisable, and that they report to this Association.

Carried unanimously.

No 22—Commission on Money Orders.

That this Association again address the Director-General of the Post Office in India and ask him to reduce the commission on Money Orders to 2 as. for Rs.25, as. 8 for Rs.100 and four annas for each subsequent Rs.100. But that the Secretary shall first ascertain what steps the Madras Trades Association, which has promised its supports, intends to take; and act in concert with it.

Carried unanimously.

No 23—The Theni Bridge.

That this Association feels very disappointed with the reply of Government to the representations made about the bridging of the Theni river and that considering the uncertainty which the Government themselves point out of the railway through Cumbum valley ever being constructed and the fact that apart from the railway this bridge is an immediate and urgent necessity, Government be asked to reconsider their decision.

Carried unanimously.

No 24—Feeder Roads on the Shevaroyes.

That this Association address the Government of Madras asking them to provide funds to finish the work on the Yercaud feeder roads.

Carried unanimously.

No 25—Madras Planters' Labour Bill.

1. That a letter be addressed to the Government of Madras embodying the opinions of this Association in regard to the proposed amendments to Act I. of 1903, and giving its reasons for the same.

2. That this Association firmly refuse to accept the so-called reciprocal obligation which Government have lately added to the proposed amendment to Section 29.

3. That this Association requests the Government of Madras to make every endeavour to complete the amendment of Act I. of 1903, before the end of the current year.

Carried unanimously.

[MEMO. OF OPINIONS.]

Section 4.—This Association is strongly of opinion, as already stated in previous correspondence on the subject, that it is very advisable in the interests of the coolie that he should not be compelled to go before an attesting officer unless he elects to do so; but is willing to accept the amendment to Section 4 proposed by Government. It regrets, however, that this is not being effected in the simple manner implied by the Government of Madras in their order No. 558, Judicial, dated 28th March, 1906.

In this connection the Association considers that Government should appoint officials of a much lower grade than at present as attesting officers in the Mysore State, where only Amildars, Taluk Sheristadars, Sub-Registrars and Hobli Sheikdars (which officials are, usually, only to be found at Taluk Headquarters) have been appointed to attest contracts, and requests that, in addition, Village Patels and Shanbhogs should also be appointed as attesting officers.

Section 29.—With reference to the Resolution that this Association has passed in connection with Section 29, this Association considers that the so-called reciprocal obligation is not in the slightest degree reciprocal, and that it would practically suggest dishonesty to the maistry and the coolie, who could at any time, by collusion, come down upon the Planter for re-payment of money already paid, and for these reasons cannot possibly adopt the Government's addition to the simple amendment proposed last year. The latter in turn, although accepted by this Association, was not what the Wynad and Nilgiri District Associations asked for, but was offered by Government instead of what they wanted.

In this case this Association, although wishing for the amendment as offered by Government last year, can under no consideration accept this so-called reciprocal obligation, and, if Government insists upon this point, infinitely prefers to refuse the amendment altogether.

Section 35.—This Association, follows the view of Government that some amendment to Section 35 is desirable. Of the two alternative amendments proposed by Government the first only can be entertained, as this Association is of the opinion that it is essential maistries and sub-maistries should continue to find a place under this section. In such cases as would come under this section when amended the maistry or sub-maistry would probably have already satisfactorily accounted for his advance. But the fact of a maistry having failed to present himself on the estate, or failed to remain there, would not at all necessarily imply that he had no labourers to look after. It is possible and even probable that a few of his coolies might be there while the majority had failed to come in, in which case he would, when ordered to return to the estate, be in a position to get such of his labourers, as had defaulted, back to work.

No 26—Warrants and Summons

That Government be asked to instruct officers who issue warrants and summons, that the number of the Police Constable entrusted with their service be recorded on them.

Carried unanimously.

No 27—Finances.

Considering the straitened circumstances we find ourselves in owing to the loss of our Reserve Fund through the failure of Messrs. Arbuthnot & Co., we recommend that a very special appeal be made by District Associations to every planter in South India and Home proprietors urging them to support their District Association and thus help to swell the funds of the U. P. A. S. I. and increase its influence.

Carried unanimously

No 28.

That for the future the funds of the Association be deposited with such Bank or Banks as may be selected from time to time either by the Association at any of its meetings or by the Executive for the time being.

That for the future all current moneys be deposited in such Bank or Banks in the name of the Association, the account to be operated upon by the Secretary of the Association for the time being, to whom the necessary authority to sign on its behalf is hereby given.

That all securities and investments other than in current Banking account, whether they are in Government Promissory notes, fixed deposits or any other form whatsoever, shall stand in the name of the Association and shall be operated upon jointly by the Chairman and the Secretary for the time being, who shall be and hereby are authorised to deal with such investments, present and future, on behalf of the Association and in its name to sell, endorse, transfer and assign Securities of the Government of India and to draw and grant receipts for sale proceeds of and for any interest that may from time to time accrue on such securities or investments.

That for the present the funds of the Association be deposited with the Bank of Madras.

Carried unanimously.

MEETINGS OF DISTRICT ASSOCIATIONS.

Wynaad Planters' Association.

Meeting of 7th August 1907 at Meppadi Club.

PRESENT.—MESSRS. C. E. Abbott, H. Atzenwiler, B. M. Behr, E. A. Hughes, Donald Mackenzie. By proxy, Messrs. A. West and H. Waddington, Honorary Secretary. Mr. C. E. Abbott in the Chair.

Proceedings of last meeting were confirmed.

Read general correspondence with reference to business of the last meeting. Approved.

1265.—*Road No. 28. Karticolam-Coorg.* Read letter from Wynaad Overseer, advising a total allotment of Rs.6,388 will be spent on the above road during current season. Noted.

1266.—*Road No. 35 B. Nellakota-Sultans Battery.* Read G. O. 826 L. and connected Government papers, letters from the Hon'ble Mr. H. P. Hodgson, Messrs. H. W. Sheldrick, L. C. Liebenrood, J. S. Nicolls, A. West, Haji Fakir Mahomed Sait & Co., R. K. Walker and the Honorary Secretary.

Resolved that the delegate to the U. P. A. S. I. be instructed to support the Nilgiri Planters in any effort they make for the betterment of this road.

1267.—*Cattle Trespass.* Read Proceedings of the District Magistrate of Malabardated 11th July as follows.—“ G. O. Nos. 1602 Judl., dated 13th Aug. 1891, and 384 Judl., dated 4th March 1898, Government directed that “ within the Wynaad Taluk, Sec. 26 of the Cattle Trespass Act, 1871, shall be read as if it had reference to cattle generally instead of to pigs only and as if the words ‘ Fifty Rupees’ were substituted for ‘ Ten Rupees’. The “ Deputy Magistrate, Wynaad, is requested to draw the attention of the Sub-Magistrates in his division to the above orders, which appear to have been lost sight of by them.”

Noted with satisfaction.

Read letter from Honorary Secretary to the District Magistrate with reference to Judgment in C. C. 69, Vayitri, not being in accordance with certified copies of evidence, to which no reply has yet been received.

1268.—*Post Office.* The Honorary Secretary was instructed to ascertain at what time post for Calicut leaves Vayitri and whether the time of posting can be extended at Velleramulla and Meppadi.

1269.—*U. P. A. S. I. Agenda of Meeting, 19th August 1907.*

1270.—*Duties.* The Delegate was requested to support any action,—(a) for the reduction of the British Import Duty; (b)—for support of the Anti-Tea-Duty League; (c)—for the abolishment of the Ceylon Import Duty.

1271.—*Finance.* The cultivated acreage represented by this Association is 11,400 acres. Association is willing to subscribe a maximum of Rs.300.

1272.—*Labour Law, Act I. of 1903.* The Association emphatically protests against any proposal to make planters in any way responsible for any act of Maistreys.

1273.—*Registration of Maistreys.* Mr. Hughes brought forward the question of the advisability of all Maistreys being registered. He was requested to submit a scheme, and the delegate was asked to ascertain if other Districts were in favor of such a scheme.

1274.—*Rubber.* Read letter from Mr. Malcolm stating that land newly opened under rubber, in the Nilgiri District in the Nilambur Valley, receives remission of taxation for a longer period than land opened in Wynaad, and asking that the inconsistency should be brought to the notice of the U. P. A. S. I. Delegate was requested to bring the matter to notice of the meeting.

1275.—*Measures.* Delegate was instructed to ascertain if other Districts will move in the matter of the introduction of the Madras Measure.

1276.—*Money Order Commission.* Read circulars and correspondence. It was decided to continue agitation for reduction.

1278.—*New Member.* Mr. D. H. McLeod was proposed by Mr. Atzenwiler, seconded by Mr. Hughes, and will be put up for election at next meeting.

1279.—*Papers on the Table.* U. P. A. S. I. Circulars Nos. 40-44. Franco-British Exhibition, 1908. I. T. A. Circular No. 14. Programme of H. E. the Governor's Tour, Calicut.

A vote of thanks to the Chair terminated the proceedings.

(Signed.) C. E. Abbott, *Chairman*.

(„) H. Waddington, *Hony. Secretary*.

Coorg Planters' Association.

Proceedings of a Quarterly General Meeting held at the Bamboo Club on Wednesday, August 7th, 1907, at 3 p.m.

PRESENT.—Messrs. W. A. F. Bracken, W. Egerton, (visitor) J. W. Finlayson, H. G. Grant, G. C. Garrett, F. W. Gerrard, R. Hamilton, (visitor) A. H. Jackson, H. M. Mann, E. L. Mahon, F. Macrae, H. T. Shaw, R. D. Tipping and A. Lambert, Honorary Secretary.

Mr. Grant was voted to the Chair.

The Honorary Secretary, in opening the meeting, regretted the absence of Mr. Murray-Aynsley, the President, C. P. A., and Messrs. Maclean and Graham, owing to the inclemency of the weather rendering the far journey from North Coorg most undesirable and, then, proceeded to read over the minutes of the last meeting, and the following suggestions concerning the same were made.

Supply Bills.—Ask Government to be good enough not to discontinue the encashment of supply bills at Veerajpett Sub-Treasury, any way until it is seen what happens during current season in connection with the same.

Amendment of C. P. A. Rules.—Rough Copy of the amended rules to be laid before the next meeting, for final approval, before the printing and issuing to members of same is proceeded with.

Agenda Paper of the forthcoming U. P. A. Meeting.—The Agenda Paper was then discussed seriatim, and the subjects under the following headings were specially touched upon as appertaining more to our interests than the generality of the questions included in the said paper, and suggestions were made in this connection for the guidance of our delegates.

Economic Products with reference to the importation of Rubber Seeds.

Finance, Coffee Popularisation, and Adulteration, Roads and Communications with regard to Railways, *Weights and Measures*.

The following gentlemen were appointed Delegates:—Messrs. Murray-Aynsley and A. Lambert.

South Coorg Pepper-Stealing Prevention Fund.—The Honorary Secretary read out the suggestions of the Sub-Committee in connection with the same, and they were, generally, approved of by the members present, with the exception of the proposed method of assessing the members of the fund for the supply of funds necessary for up-keep. A Committee consisting of Messrs. Bracken, Macrae and R. D. Tipping were appointed for the purpose of floating the said fund as a going concern and they were requested to take into careful consideration the question of assessment with a view, if feasible, to a more equitable regulation being devised in place of the rule therefor suggested by the Sub-Committee. A vote of thanks to the Sub-Committee for their labours in connection with the S. C. Pepper-Stealing Prevention Fund was proposed by Mr. Mahon and unanimously approved. The Honorary Secretary explained that though this Pepper-Stealing Prevention Fund was styled South Coorg, yet it goes without saying that members of the C. P. A. from the whole Province would be welcomed as subscribers thereto.

New Members, C. P. A.—Mr. W. M. Ball, proposed by Mr. H. M. Mann, seconded by Mr. A. Lambert, unanimously elected.

General.—The question of the Sidapur-Polli Betta Road is left in abeyance until the return of our Executive Engineer from leave of absence.

The Chairman then addressed the meeting in a few well chosen words, and proposed a vote of thanks to the Honorary Secretary for his exertions in connection with the affairs of the C. P. A.

A. LAMBERT, *Hony. Secretary, C.P.A.*

The Mundakayam Rubber Planters' Association.

Minutes of Quarterly General Meeting held at El Dorado bungalow at 10 a.m., on Saturday July 20th, 1907.

PRESENT :—Messrs. J. A. Richardson, W. Grey, H. Drummond Deane, A. E. Vernede, J. J. Murphy, H. B. Kirk, B. Wolde, E. R. Haslam, F. E. Vernede.
H. S. Holder, (Chairman & Honorary Secretary).

Read Notice calling the Meeting.

Proceedings of last meeting were read and confirmed.

Interview with the British Resident.—The Honorary Secretary reminded members that, at the last meeting, he had been requested to seek an early opportunity, of, in person, laying before the British Resident the grievances of the planters of this district.

This he had done, and he proposed to touch on this matter first, as it related to subjects on the Agenda. He had, before the interview, forwarded to the Resident copies of correspondence and of such papers as were necessary in order that he might be informed on all points.

Kuttikal Road.—With regard to the Kuttikal Road, the Resident said :— I have seen the papers in connection with this subject and understand that a definite promise was given by His Highness's Government when Mr. Madhava Row was Dewan; this promise the Durbar ought to fulfil. I consider that they should make the road.

Mundakayam Hospital.—In reference to the request made by your Association for a Hospital at Mundakayam and the reply you have received :

I believe the Durbar to be most generous and ever ready to give reasonable help in the matter of medical aid, and I suggest that you should apply for help, in the way of a grant towards the dispensaries you say you have established on your estates.

Jurisdiction of the Cardamom Hill Magistrate.—I fully recognise the urgent necessity of this jurisdiction being defined, the matter should be settled at once.

I believe it has for some time been before His Highness the Maharajah's Government.

I think, gentlemen, these were the chief points touched on during my interview with the Resident, who was sympathetic and gave me a very patient hearing on these and nearly all other minor points.

Mr. Deane asked if Mr. Holder had, during his interview, referred to the notice published in the Travancore Government Gazette in regard to the necessity of Europeans having to obtain permission to acquire land in Travancore.

Mr. Holder replied that he had not done so.

Mr. Deane said he thought it was a pity Mr. Holder had omitted to allude to this matter.

Mr. Richardson proposed that the Honorary Secretary be requested to write to the Dewan drawing his attention to the delay in granting permission to acquire land and quote the specific incidents of such delay.

Mr. H. B. Kirk's application of the 24th August 1906.

Mr. J. J. Murphy's do of the 12th June 1906.

Mr. Deane's do of the 12th May 1906.

Seconded by Mr. Deane and carried.

Mr. Kirk moved that the Honorary Secretary write to the British Resident enquiring under what Regulations the Travancore Government demand that Europeans and Americans obtain the permission of the Durbar in every instance of acquiring lands (other than Government lands) in Travancore and point out that Government have ignored the Honorary Secretary's letter asking them for this information.

Seconded by Mr. Wolde and carried.

The Honorary Secretary then read the Agénda. Correspondence was read on the subjects contained in the Agenda, including combined Postal and Telegraph Office at Mundakayam (which has now finally been sanctioned) and the Residency scheme.

Resolutions of which notice had been given.

Resolution by Mr. Deane:—

That the attention of the Travancore Government be again drawn to the necessity of defining the boundaries of the jurisdiction of the Superintendent and District Magistrate. The Cardamom Hills, at an early date and emphasise the fact that at the Sri Mullam Popular Assembly Meeting of 1905 and 1906, the Delegate attending had drawn the attention of Government to this subject and that a promise had been given that the matter would be dealt with at an early date.

Seconded by Mr. Murphy and carried.

Mr. Grey withdrew the two Resolutions of which he had given notice.

Resolution by Mr. Deane.—That the Honorary Secretary be requested to address the Vanjipusha Chief drawing his attention to certain claims made under Vempattom leases against lands now leased to Europeans and point out the urgency of his taking the necessary steps to cancel the said leases even should they have in the ordinary course expired.

Seconded by Mr. H. B. Kirk and carried.

U.P.A.S.I. Delegate.—Resolved that Mr. J. A. Richardson be invited to represent this Association at the forthcoming Annual Meeting of the United Planters' Association at Bangalore on the 19th August and that Rs 100 be granted from the funds of this Association towards his expenses. Mr. Richardson replied that he would gladly represent the Association.

Peermade Residency lease (as a sanatorium) scheme.—Resolved that the Honorary Secretary do write to Government expressing regret that the Durbar do not see their way to meeting members in regard to the granting of an option and stating that home friends will be approached with a view to ascertaining what support is available and if the offer made by Government is still open within 3 months from date, he will again communicate, but that in the meanwhile no definite reply can be given,

Resolved that the "Residency Sub-Committee" draw up a letter to be circulated to Proprietors or Concerns subscribing to this Association with a view to ascertaining what support their home friends will give to the scheme of leasing the Residency (and certain godowns and stabling) as a sanatorium for members whose work requires them for the greater part of the year to reside in the less bracing climate at the foot of the hills.

Mr. Wolde and Mr. Grey were elected Committee members.

With a vote of thanks to the Chairman, the meeting terminated.

(Signed) H. S. HOLDER,
Chairman and Honorary Secretary.

A considerable quantity of Pará rubber has been planted in Surinam with every prospect of success. Rubber (*Hevea Guianensis*) has recently been discovered in the interior, but the trees appear to be few and far between, and the yield and quality is inferior to that of the *Hevea Brasiliensis*.

The cocoa plantations in Surinam are still suffering severely from the "Kroloto" disease. Experiments having in view the stamping out of this disease are still being carried out by the Government, but the results still remain doubtful, and even should they prove successful on the limited areas it is doubtful whether they could be applied with equally good results to all the cocoa in the colony. The crop for 1906 amounted to 1,810 tons, against 1,495 tons in 1905, 848 tons in 1904, and 8,526 tons in 1899.

INDIAN TEA CESS COMMITTEE.**Extracts from the Fourth Annual Report.***Being that for the year ended 31st March, 1907.*

In this their fourth Annual Report the Indian Tea Cess Committee have to record the progress which has been made in their work during the fourth year of the existence of the Tea Cess. The cess was imposed by Act IX. of 1903 for a period of five years, and came into operation on the 1st April 1903. It will, therefore, come to an end on the 31st March 1908; but the question of continuing it for a further term of five years has been under consideration, and is referred to in the following pages.

[List of members and notes on changes of membership during the year are here given.]

At the half-yearly meeting held on the 27th July 1906, Mr. W. Brown was unanimously elected Chairman of the Committee, and Mr. T. McMorran, Vice-Chairman.

The following gentlemen were also appointed to form the Executive Committee:—

The Chairman.

The Vice-Chairman.

Mr. H. C. Begg.

Mr. N. A. Macleod.

„ G. A. Ormiston.

„ W. E. Preston.

Mr. T. Traill.

Mr. Begg has been succeeded by Mr. Pickford, Mr. Macleod by Mr. D. Youngson, Mr. Ormiston by Mr. W. D. Cowan, Mr. Preston by Mr. C. D. Inglis, and Mr. Traill by Mr. Lockhart Smith.

The principal questions dealt with by the Committee during the year are referred to in the following paragraphs.

Export Bonus on Green Tea.

It was stated in the last Report that at their meeting held on the 9th February 1906, the Committee resolved to offer a bonus of six pence per lb. on two million lbs. of green tea to be manufactured during the year 1906. On the 21st February 1906, the Executive Committee published the rules in accordance with which the bonus was to be paid. They also invited tenders for the manufacture of green tea in consideration of the bonus. In response, they received tenders to the extent of 1,826,900 lbs. Of this quantity claims for the bonus have been submitted on account of 1,497,990 lbs., and have been paid in full except in regard to 5,950 lbs. upon which the first instalment only has been allowed.

At their meeting on the 29th January 1907, the Cess Committee adopted the following resolution:—

“That a bonus of six pence per lb. be offered on two million lbs. of green tea to be manufactured during 1907 on the same terms as last year.”

On the 5th February the Executive Committee issued the following rules covering the payment of the bonus, *viz.*:—

- (1) The bonus will be paid on green teas made in India exported to foreign countries, including any part of the British Empire outside of India.
- (2) The Committee reserve the right to refuse payment of the bonus in any case where (after examination of the samples drawn under Rule 5) they consider the tea unsuitable from coarseness of leaf, error in manufacture, or unsound condition. No bonus will be paid on dust.
- (3) The Committee recommend those making green tea for the first time to submit samples of their early manufacture for examination. The leaf to be used for the manufacture of green tea should not be coarser than that ordinarily plucked for black tea manufacture.
- (4) When teas upon which bonus is claimed have arrived at port of shipment, samples must be drawn and sent to the Committee; and on approval of these, and on proof of export, the bonus will be paid.

- (5) Proprietors or Agents of Gardens who are prepared to manufacture green tea during the season 1907 should fill up the accompanying form, and return it to the Secretary not later than 31st March 1907.
- (6) Any dispute arising as to the interpretation or working of the foregoing rules shall be referred to the Tribunal of Arbitration of the Bengal Chamber of Commerce to be determined in accordance with the rules for the time being of the Tribunal.

The total quantity of green tea which has been tendered in consideration of the bonus is 2,246,100 lbs.

Indian Tea in Europe.

In the last Annual Report reference was made to the steps which the Committee were taking to increase the consumption of India tea in Europe. As was there stated a sum of £2,200 was voted to the support of a scheme of work in Belgium and Germany. The management of the undertaking was placed in the hands of Mr. J. E. M. Harington, who has located his headquarters at Antwerp. A further sum of £1,500 for the year 1907-08 was allotted to Mr. Harington at the meeting of the Cess Committee held on the 29th January 1907.

Briefly stated, Mr. Harington's plan of operations is the following: (a) the establishment at Antwerp of a Central Continental Dépôt of Indian tea; (b) the opening of branch dépôts in Germany and elsewhere; (c) the promotion of the sale of Indian tea by means of personal visits, travelling, advertising, and the distribution of free samples. Commodious warehouses and offices have been taken at Antwerp, where the business was started in 1906, under the style of the Indian Tea Syndicate—a private venture, working under the auspices of the Indian Tea Cess Committee. Support is given mainly for advertising in various forms, and there is no remuneration to the management, and no bonus on tea sales. Tea is put up in packets varying in weight from about 2 oz. to 1 lb., and is forwarded by post direct to consumers. At an Exhibition held in Antwerp in 1906, Mr. Harington arranged a display which was awarded a gold medal. At another Exhibition held in Brussels from August to October last, he organised a tea room at which upwards of 20,000 samples, booklets, etc., were distributed and 5,000 cups of tea sold. For this representation he was awarded a Diploma of Honour—the highest prize. In Berlin he has opened two dépôts at which tea is served in the cup at about one-third of the Berlin rates. He has also organised a display at an Army, Navy, and Colonial Exhibition which is now opened in Berlin; an Indian tea pavilion has been erected in the gardens, and the venture promises well. A German agency has likewise been started at Hamburg, and efforts are being made to interest retailers in various districts of Hamburg, Schleswig-Holstein, Mecklenburg, and elsewhere. The actual sales of tea from the Antwerp dépôt are increasing steadily, although the totals are, of course, small when measured by English standards. But it has to be remembered that the tea is distributed mainly in small packets to thousands of individual consumers. By these means a taste for tea is being created, and the value of the work done is quite out of proportion to the apparently small quantity of leaf disposed of. On the whole the progress which is being made in Europe seems to the Committee to be satisfactory, and there is, they think, no doubt whatever that the Continent offers a very great field for Indian tea.

Another scheme for working through some of the large London tea distributors is being formulated in London; and at their meeting on the 29th January last the Cess Committee voted a sum of £3,000 to its support. The particular Continental countries to which operations will be restricted have not yet been determined, but the Committee understand that it is proposed to cover a wide area.

Indian Tea in India.

During the year now under review the Cess Committee did not take any action with the object of promoting the sale and increasing the consumption of Indian tea in this country. There are many difficulties surrounding the question, and but little more than experimental measures can be hoped for at

present. After very full consideration the Executive Committee saw their way towards the end of last year to recommend the Cess Committee to make allotment of Rs.80,000. This sum was voted at the half-yearly meeting held on the 29th January 1907, and the Executive Committee were empowered to devise a scheme of work to be carried out during the year 1907-08. The original idea was to engage a Commissioner to conduct operations, but this was ultimately abandoned, and the Executive Committee accepted a scheme put forward by Messrs. Lyall, Marshall & Co., the Agents of the Indian Tea Supply Co., Ltd. The cost of the scheme for one year will be about Rs.14,870. The country to be covered is a tract of about 100 square miles bounded on the north by Dinajpore, on the west by Rajmehal, on the south by Rampor Boalia, and on the east by Bogra. The project is an experiment, and is being undertaken with the object of ascertaining definitely whether there is a reasonable chance of large quantities of tea being sold to the natives of India. The tea will be put up in half anna, one anna and two anna packets, and will be offered to all classes of the people by a staff of travellers. After visiting the principal residents and giving a demonstration, the traveller will arrange with a *bunnia* to hold a stock of the packets for sale, making him sole agent for the village. The travellers will confine their efforts to villages and small *hâts* away from the railways. The mode of transit will be by cart, the travellers making a given point his headquarters within a given area. An inspector will go regularly over the district to see that the work is being systematically carried out.

Indian Tea in Tibet.

The question of the promotion of the sale of Indian tea in Tibet was dealt with in the last Report. It has since engaged the close attention of the Executive Committee and of the Cess Committee, but until within the last few weeks no definite action has been possible. The absence of a good road between India and Tibet is one of the difficulties in the way of any progress being made in improving the trade. This matter was also mentioned in the last Report. Recently the Executive Committee again approached the Bengal Chamber of Commerce regarding it, and the Chamber addressed the Government of India. At the instance of the Committee the Chamber urged the construction of a road from Phari down the Chumbi Valley to Rinchengong and thence to the plains of India *via* the valleys of the Amo-chu and Di-chu-rivers. But the Government of India have stated that they do not at present contemplate doing anything in the way of constructing this road. The question of the improvement of the existing mule road from Kalimpong to Chumbi *via* the Jelap-la is, however, understood to be now engaging their attention.

The Report by Mr. Jas. Hutchison on his mission to Ssuchuan, which was published in 1906, contained the information necessary to enable planters to make brick tea suitable for the Tibetan market. Small quantities of brick tea have since been manufactured on certain Indian gardens, and have been disposed of in Tibet, with the assistance of the British Trade Agents. But the trade is not being pushed, and does not at present exhibit any promising signs of vitality. There is the difficulty of inadequate communications to contend with, and there is also a great need for the adoption of systematic methods of pushing the trade. To supply this need the Committee have considered the question of appointing an agent to work in the country in the interests of Indian tea. But before deciding to make a definite appointment, they have arranged for a preliminary enquiry to be undertaken, and for a report to be furnished to them. This enquiry they have entrusted to Mr. A. C. R. Righi of Darjeeling, who started for Gyantes quite recently, and who will report within a few months. In the meantime the Assistant Political Officer at Chumbi has kindly consented to assist the Committee by arranging for a few tea shops to be opened in the Chumbi Valley. This experiment has just been started, and about two hundred Indian-made bricks have been sent up for sale at the shops. The thanks of the Committee are due to Captain O'Connor, R. A., the British Trade Agent at Gyantse, and to Lieutenant Bailey, the Assistant Political Officer at Chumbi, for the great interest which they exhibit

in the promotion of the trade, and for the valuable advice and assistance which they are always willing to give.

Indian Tea in America.

The operations in the United States of America which were inaugurated by the Cess Committee in 1908 have been continued during the past year under the direction of Mr. Richard Blechynden. As was indicated in the last Report, the joint working with Ceylon is still being carried on. Of the total amount of £12,000 which is expended annually on this account by Mr. Blechynden four-sevenths are contributed by India, and three-sevenths by Ceylon. This expenditure is concentrated in what is generally known as the Middle-West territory, and Mr. Blechynden makes St. Louis his headquarters. There is no need for the Committee to detail here the work which is being accomplished, as they have already published the very full report in which Mr. Blechynden has reviewed his operations. Satisfactory progress is undoubtedly being made although owing to the difficulty of procuring accurate statistical information this assertion cannot be supported by figures. But Mr. Blechynden is now engaged in an attempt to collate fairly complete statistics of the importation and distribution of Indian and Ceylon tea, and when these are ready it will be possible to draw more precise conclusions as to the exact position. It should be added that the joint working with Ceylon will continue during the year 1907-08, on the same terms as those which have been hitherto in force. That is to say, a total sum of £12,000 will be contributed in the same proportions as heretofore.

In addition to the joint fund, Mr. Blechynden is also charged with the control of the expenditure of a further sum which is devoted to Indian tea only. During the past year the sum thus expended was £5,000 and for the coming year it has been fixed at £4,000. Mr. Blechynden's report on the administration of this fund is so complete as to make it unnecessary for the Committee to go into details here. But the work is, they believe, being pushed on in an entirely satisfactory manner, and is leading to most useful results.

Proposed Continuance of the Indian Tea Cess.

The Indian Tea Cess was imposed by Act IX. of 1908, according to which it is to remain in force until the 31st March 1908. But the Act provides for its continuance for a further period should His Excellency the Governor-General see fit, on the recommendation of the Cess Committee, so to extend it. During the past year the Committee have fully considered the question, and they have consulted the tea industry, as represented by the Indian Tea Association and the different Local Associations throughout the country, with reference to it. The opinions which have been thus elicited have been unanimously in favour of the cess being extended for a further period of five years. The members of the Cess Committee are themselves entirely in agreement with this view; and they have accordingly recommended to His Excellency the Governor-General in Council that those sections of the Act which, in the ordinary course, would lapse at the end of March next should continue in operation for a further period of five years.

Accounts.

[A statement of accounts for the year ended 31st March, 1907 is annexed to the report.]

Mr. Consul O'Brien-Butler reports from Amoy, regarding trade in 1906:—

The export of tea continues to show a steady fall, having dwindled from 88,810 cwts. in 1896 to 7,189 cwts. in 1906. Re-exported Formosan tea in the same way indicates how this branch of trade is being drawn away from Amoy. In 1906 98,092 cwts. were re-exported, of which 76,019 cwts. went to the United States, as against 112,298 cwts. (97,191 cwts. for the United States) in 1905. The figures for re-exported tea 10 years ago were 214,780 cwts. (198,017 cwts. for the United States.)

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[No. 9.

THE U. P. A. S. I.

(INCORPORATED.)

Scientific Officer Scheme.

This matter has been brought to the notice of the Government of Madras. Replying to a letter addressed to them communicating the U. P. A. S. I. Resolution, the Government state that before any opinion can be expressed or action taken in the matter it is necessary that they should receive more definite information (1) as to the qualifications which it is desired the proposed expert should possess and as to the work he would be required to do, (2) as to the contribution which the Association is prepared to make towards the cost of the officer proposed to be entertained.

As regards the first point, it should be clearly stated whether what is required is a Chemist, a Botanist, Entomologist, or a Mycologist. If the scientific expert would be expected to combine a knowledge of agricultural chemistry with knowledge of botany, entomology and mycology, a list of the chief problems to be submitted to him should be furnished so that it may be seen whether knowledge of chemistry or of other branches of science should be specially insisted on in his selection.

Referring to the second point, the Association is informed that the Government have no qualified scientific officer to spare, and that if an expert is to be provided, he will have to be specially engaged. The salary at which such an expert could probably be obtained on a 3 year agreement may be estimated at Rs.9,000 a year, and travelling allowances and other expenses would probably bring the total cost to Rs.12,000 a year.

	Rs.
Salary	750 x 12 = 9,000
Travelling Allowance, say,	100 x 12 = 1,200
Contingencies — lump sum ..	1,800
	<hr/> 12,000 <hr/>

The Government desire to know what definite proportion of the Officer's pay the Association would be prepared to guarantee. On receipt of further information on these points, the matter will be further considered.

Popularisation of Coffee.

Under date the 18th September 1907, Mr. J. C. Sanderson writes:—

I am in receipt of your favour of the 20th August handing me copy of resolutions passed at the annual meeting of your Association which opened on the 19th ultimo.

I note with pleasure that the Planters are prepared to join, in conjunction with other countries, in any propaganda which may be inaugurated for the popularization of Coffee. Most Members of the committee are still absent from town, but I have sent copies of these resolutions to the London Chamber of Commerce and to Messrs. Brooke Mockett and Arthur Harris.

In the course of another ten days or so, a meeting of the Committee will be held, when the matter will be fully discussed.

Press Quotations for Coffee.

Under date 30th September 1907, the Manager of Reuter's Telegram Company, Limited, Madras, writes to the U. P. A. S. I. :—

On the 26th August last you addressed the Editors of the *Madras Mail* and *Madras Times* with reference to our quotations for Rio Coffee, which appear in those papers.

Rio Coffee is quoted by us to suit our subscribers, and we have referred to them on the subject of the suggested alteration, and they object to any alteration being made.

If, however, we are able to secure any subscribers to "East Indian B," and your Association feels disposed to subscribe also we shall be pleased to have it included, if obtainable.

The Indian Tea Association.

It will be of interest to planters on the South to know that in August last Mr. Hutchinson, Scientific Officer to the Indian Tea Association, (Calcutta), suggested that arrangements might be made for the issuing periodically of a Journal which might contain suggestions from leading planters as to directions for scientific investigation, comparative information as to local conditions in different districts and, generally, information which would be of value to the industry; he dwelt at length on the advantages of such a publication.

The General Committee replied that they were impressed with the proposal and were of opinion that it deserves favourable consideration; their idea is that it will be most satisfactory to wait until Mr. Hutchinson comes down to Calcutta, when they can have an opportunity of fully discussing the whole matter with him.

Sale of Tea in India.

During the last annual meeting Messrs. Vijiam & Co. of 76, Thumbu Chetty Street, Madras, submitted certain proposals regarding the sale of Tea in India, and their letter was considered and recorded. A copy of this communication has since been placed at the disposal of each of the Councillors and, therefore, of the Honorary Secretaries of the various District Planters' Associations. The above firm are understood to be willing to undertake the sale of Coffee, as well as Tea.

Madras Agri-Horticultural Society.

The Hon. Secretary of the Madras Agri-Horticultural Society writes to the U. P. A. S. I. :—

At the next exhibition of the above Society, to be held on the 15th February, 1908, several prizes have been offered for competition which should attract attention among planters. I append particulars and should be obliged if you would make them known among the members of the U. P. A. S. I. and the District Planters' Association. Further particulars may be had from the Superintendent, Agri-Horticultural Society, Madras.

The particulars referred to are as follows :—

"Silver or Bronze Medals will be awarded for any exhibits of plants and products of special economic value, e.g., rubbers; tobacco leaf grown locally, fit for wrappers; tanning materials, tea, coffee, drugs, etc., etc."

MEETINGS OF DISTRICT ASSOCIATIONS. Shevaroy Planters' Association.

The System of Coffee Passes and Special Police in Crop Time.

A Special General Meeting was held on August 5th, 1907, at the Victoria Room, Yercaud, to consider the recommendation of the Sub-Committee appointed at the Quarterly General Meeting held on June 10th, 1907, *re* Coffee Passes in conjunction with means for the better policing of these Hills in crop time, and the following resolutions were passed.

PRESENT.—Fathers F. Daniel and Rochet, Messrs. H. S. Dickins, E. Dickins, C. Rahm, O. Dickins, F. D. H. Short, S. M. Hight, C. G. Lechler, J. C. Large, W. Rahm, R. A. Gilbey and B. Cayley, Chairman and Honorary Secretary.

1. *Resolved*—That only one form of coffee pass be used for the Shevaroy for all consignments or sales of coffee.

N.B.—This does not affect the transport of produce from one estate to another.

2. That pass forms be sold in books containing 10, each pass to be numbered consecutively and stamped with the Yercaud Deputy Tahsildar's Official Seal and sold for 10 annas a book.

Proposed by Mr. C. G. Lechler and seconded by Mr. F. D. H. Short—Carried by 11—1.

3. *Resolved*—That the names of the issuers of the passes be kept on record in the Yercaud Deputy Tahsildar's Office.

4. That the coffee passes be compulsory on the Shevaroy.

Proposed by Mr. C. G. Lechler and seconded by Mr. F. D. H. Short—Carried by 11—1.

5. *Resolved*—That the form of coffee passes be the same as those in general use on the Shevaroy but in triplicate.

6. *Resolved* (a) That the original pass be retained by the issuers.

(b) That the duplicate pass be given to the carrier of the coffee to be delivered up to the police at the place of delivery, who shall verify the contents and return the pass to the Station House Officer, Yercaud.

(c) That the issuer forward the triplicate pass direct to the Station House Officer, Yercaud, for the purpose of checking the duplicate pass (b).

7. *Resolved*—That these passes be forwarded by the Station House Officer, Yercaud, to the Deputy Tahsildar, Yercaud, and a register kept of all coffee despatched from these hills for comparison with the estimates previously sent in as now required by Government in Form A.

8. *Resolved*—That an Inspector be sent up in charge of the Special Police Constable as Check Officer, and that he be requested to check all crop books whatsoever once a month.

9. *Resolved*—That 5 police stations be formed and 2 constables be stationed at each, who shall patrol in pairs and in plain clothes and who shall keep a watch on coffee in transit and also on the various estates within their area and present their beat books for signature daily at a different estate in their beat.

10. *Resolved*—That the Association grant a reward to the Police concerned of Rs.25 for conviction in a coffee theft and Rs.50 for conviction of a receiver.

11. *Resolved*—That the Honorary Secretary be requested to write to the District Magistrate and the Superintendent of Police, Salem, enclosing copies of resolutions passed, and to ask the District Magistrate if he will receive a deputation consisting of Messrs. J. C. Large, S. M. Hight and B. Cayley to discuss the resolutions and that the Superintendent of Police may be present at the interview.

With a vote of thanks to the Sub-Committee, the meeting terminated.

(Signed) BERNARD CAYLEY, Chairman.

Shevaroy Planters' Association.

Proceedings of the Annual General Meeting, held in the Victoria Rooms, Yercaud, on September 9th, 1907.

PRESENT.—Rev. F. Daniel and Rev. L. Rochet; Messrs. C. G. Lechler, G. Turner, C. Dickens, E. Dickens, S. Campbell, C. Rahm, W. Rahm, F. D. Short, R. F. Carey, C. K. Short, H. Dickens, S. M. Hight, J. C. Large, E. C. Large, and B. Cayley, Chairman and Honorary Secretary.

1. The Honorary Secretary's Report.—

GENTLEMEN.—Mr. W. I. Lechler and I shared the duties of the Honorary Secretaryship for the past year and if my report is incomplete, I hope you will cut it down to that, for much of my information of what was done has been pulled from the reports handed over to me on May 1st.

Accounts.—These show a balance in hand on August 31st of Rs.359-3-9 compared with Rs.481-7-8, on the same date last year. Subscriptions show a falling off of Rs.77-8-0, due to the fact that last year many arrears were paid up. This year only Rs.24 is due, which will, I hope, be recovered shortly.

Feeder Roads.—This subject is still a matter of correspondence, but there is nothing to report further. It is, however, the care of the executive to try and get certain roads completed so as to enable them to fulfil their proper functions.

Telegraphs.—Nagalur has now been placed in telegraphic communication with Yercaud, which must be a source of gratification to the members in that district.

Police Arrangements.—The arrangements made last year and the patrolling of the special constables were unsatisfactory. This year there has been much correspondence on the subject of coffee passes combined with better Police arrangements, and a sub-committee was appointed in June last to consider the subject and report on the best measures to adopt. This they did, and with trifling modifications, their report was approved at a special general meeting held on August 5th. Messrs. J. C. Large, S. M. Hight, and the Honorary Secretary were at this meeting appointed to approach the District Magistrate and Superintendent of Police and lay their views before them, and I propose to make a statement of their action when the subject is discussed later on.

Abyssinian Coffee.—A bag of this was distributed in December last to members for experimental purposes but the seed was old and consequently its germinating power was practically gone, which perhaps is the reason why no results have been reported to the Association. A further small supply was forwarded to me by the Honorary Secretaries, Salem Agricultural Association, in August, which has been put down, but with no hope of success.

Cotton.—Caravonica cotton is undoubtedly unsuitable for the Shevaroy, but those who wish to experiment further with cotton can have, on application, some of the seeds of Tyler's cotton, a couple of pounds of the seed of which has been sent me for distribution. It appears to be of the Peruvian variety and may do well; for an acclimatised Peruvian cotton is to be found on these Hills which grows rapidly and gives a fair quantity of cotton even when uncultivated.

Bye-Products.—A large area of Pará and Ceará rubber has been planted, mostly amongst coffee, and it would be instructive if, say once or twice a year, those who have planted it would give information as to growth and appearance at the different elevations, to the Honorary Secretary for distribution amongst the members. The same applies to all bye-products which are likely to be remunerative. If all those who experiment will give their experiences for the use of the community we cannot but benefit, and an annual resumé of the efforts of planters in this direction would make a valuable report for reference and be a means of mutual help and encouragement. With regard to coffee pests, the methods in use for combating the various pests and their success or failure, with notes on the same would, I feel sure, be much appreciated by members, for methods which are successful elsewhere are not necessarily successful locally. I

should like to see an annual report of experiments in these directions embodied by the Association and sent to all its members for their information.

Delegate to U. P. A. S. I.—Mr. Turner was asked to represent this Association at the annual meeting, and we await his report on the work done.

The committee now place their resignations in your hands.

Proposed by Mr. Turner and seconded by Mr. S. Campbell, that the accounts be passed and the report adopted and printed and copies sent to members.
—*Carried unanimously.*

Proposed by Mr. C. G. Lechler and seconded by Mr. G. Turner.—“That the proposals of the Honorary Secretary *re* reports from members regarding bye-products and pests be adopted and that members be invited to send in reports once a quarter to the Honorary Secretary for printing and circulation amongst members of this Association.”—*Carried unanimously.*

U.P.A.S.I. Delegate's Report.—Mr. G. Turner gave an account of what had been done at the meeting in Bangalore, which met with the approval of the Association, and a hearty vote of thanks was accorded him.

Subscription to U.P.A.S.I., 1907-08.—Proposed by Mr. B. Cayley and seconded by Mr. C. G. Lechler.—“That the Association pay Rs.150 for the coming season and as it is willing to pay 8 pies per acre on all cultivated lands do instruct its delegate at the next annual meeting of the U. P. A. S. I. to support this proposal.”—*Carried unanimously.*

Police Arrangements in Crop Time.—Proposed by Mr. C. G. Lechler, and seconded by Mr. C. Dickens.—“That this matter of coffee passes be postponed till such time as the Honorary Secretary receive the reply of the Superintendent of Police Madura, and that the sub-committee thereupon meet and embody such ideas from the Madura scheme as would be advantageous to our system, and that the sub-committee then call a public meeting of owners at an early date.”—*Carried unanimously.*

Preservation of Game.—Proposed by Mr. G. Turner and seconded by Mr. S. M. Hight.—“That the Honorary Secretary be empowered to convene a meeting of residents of the Shevaroy Hills for the purpose of considering the question of the production of game and of forming a Game Association for the Shevaroy.”—*Carried unanimously.*

Breach of Contract Delays.—Proposed by Mr. S. M. Hight, seconded by Mr. J. C. Large.—“That the Honorary Secretary be requested to address the District Magistrate with reference to the difficulty now experienced in serving warrants and summonses under the Breach of Contract Act and also as to delay in disposing of cases and the difficulty when issuing warrants and summonses on defaulting coolies, owing to the present system of posting such warrants, etc., to various Station House Officers, and that the Honorary Secretary be requested to suggest that the complainant should not be called upon to attend Court until the accused has been arrested and bound over to appear on a given date and that thereupon only the notice should be sent to complainant to appear; secondly, that warrants should be entrusted for service by the Yercaud Police only.”—*Carried unanimously.*

Yercaud Feeder Roads.—Proposed by Mr. S. Campbell, seconded by Mr. G. Turner.—“That the correspondence relating to the Yercaud Feeder roads be sent up to the U. P. A. S. I. and they be asked to approach Government and ask them to find the funds necessary to complete them in accordance with the resolution to that effect passed by the U. P. A. S. I. at their meeting in August, 1907.”—*Carried unanimously.*

Waste Land on the Nilgiris.—Resolved that the Honorary Secretary be requested to write to the District Magistrate requesting that the additional rules relating to waste lands in force in the Nilgiris be extended to the Shevaroyas.

Papers distributed.—A. Forms for coffee estimates.

Notes on tapping *Funtumia Elastica*.

Proceedings of Special General Meeting held on August 5th, 1907.

Election of Office-Bearers for 1907-08.—B. Cayley, Chairman and Honorary Secretary.

S. M. Hight	} <i>Committee.</i>
C. Dickins	
J. C. Large	
G. Turner	
C. Rahm	
C. G. Lechler	
F. D. Short	

With a vote of thanks to the chair, the meeting terminated.

(Sd.) BERNARD CAYLEY,
Chairman.

The Nilgiri Planters' Association.

Proceedings of an Extraordinary General Meeting held at Ootacamund, on Friday, the 6th September 1907.

PRESENT.—Messrs. the Hon'ble H. P. Hodgson, W. Mullaly, L. C. Liebenrood, A. F. Vans Agnew, H. D. Wilbraham, F. M. Cockburn, R. L. Proudlock, and C. H. Brock (Honorary Secretary).

1. Mr. W. Mullaly was voted to the chair.

2. The Proceedings of the Annual General Meeting held on 22nd April, 1907, and of the Committee Meeting held on 18th August, 1907, were read and confirmed after previous circulation.

3. The Honorary Secretary then read the report of the delegates to the U.P.A.S.I. General Meeting at Bangalore, which ran as follows:—

GENTLEMEN.—As directed by you, we attended the Fourteenth Annual General Meeting of the United Planters' Association of Southern India, held at Bangalore on the 19th, 20th, 21st and 22nd of August.

Ten District Associations were represented at the Meeting by fourteen delegates. A fairly full account of all that took place in open meeting has been reported in the *Madras Mail*. Dr. Lehmann gave a very interesting address on the results of experiments in Pruning. The Hon'ble Mr. A. Williams, British Resident in Mysore, was present at the discussion on the proposed Mangalore-Arsikere Railway.

In accordance with your instructions we supported resolutions dealing with the further reduction of the *British Import Duty on Tea*; the withdrawal of the *Ceylon Import Duty on Tea*; a vote of thanks to Dr. H. H. Mann; the agitation against the *Adulteration of Coffee* in England; the *London Quotations of Coffee* in the Madras Press; the continuance of the *Tea Cess*; and the reduction of *Commission on Money Orders*.

The other most important subjects were:—

The Popularisation of Coffee.—This subject was very fully discussed, and delegates were of the opinion that, provided other coffee producing countries support the scheme proposed by Mr. Sanderson, Government should be requested to levy an Export Cess, and that the proceeds of this should be devoted to the campaign for the Popularisation of Coffee in England and other countries.

Fertilizers.—The Meeting was glad to notice that yearly more firms are giving guaranteed analyses of manures, and again urges upon planters to give support to the firms doing so.

Scientific Officer.—This important project gave rise to a great deal of discussion. It was felt that, as the U. P. A. S. I. has lost its reserve fund, it

would be very difficult and risky for the Association to appoint and maintain its own Scientific Officer, as the estimates drawn up showed no margin of funds to fall back on in the event of estimates being exceeded. It was finally decided to request the Government of Madras to lend a properly qualified officer to carry out the necessary work entirely under the control of the U. P. A. S. I. for three years, and that, after ascertaining how much assistance can be obtained from the Imperial and Mysore Governments and planters themselves, the sum so collected be tendered as a contribution towards the outlay.

Madras Planters' Labour Act.—We carried out your instructions as to the proposed amendments to the Act, but we had to decide as regards Sections 4 and 85 on our own initiative, as the last proposals of Government as to the amendments of these Sections only reached us three or four days before attending the meeting. We are bringing these points before you to-day for discussion, and we trust that you will approve of the opinions that we expressed on your behalf.

Finance.—There was a very strong feeling on the part of the Travancore Associations that the subscriptions of District Associations to the U.P.A.S.I. should be levied on a uniform acreage basis. It was proved, however, that two or three Associations could not possibly manage to pay any large increase of subscription, so it was finally resolved that a very special appeal should be made by District Associations to every planter in India and Home proprietors urging them to support their District Associations and thus help to swell the funds of the U. P. A. S. I. and increase its influence.

Office Bearers.—The following gentlemen were elected to office for the current year :—

Chairman	.. Mr. C. E. Abbott, (Wynaad).
Vice-Chairman	.. Mr. J. G. Hamilton, (S. Mysore).
Planting Member	.. The Hon. Mr. H. P. Hodgson.
Secretary	.. Mr. H. Ormerod.

(Signed) The Hon. Mr. H. P. HODGSON.

(„) Mr. C. H. BROCK.

The report was passed, and a vote of thanks to the delegates, proposed by Mr. Wilbraham, was carried unanimously.

4. **Madras Planters' Labour Law.**—The meeting confirmed the action of the delegates with reference to the latest amendment to Section 4 proposed by Government.

Read.—U.P.A.S.I. Circular No. 48 of 1907, dated 4—9—07.—After a good deal of discussion the following resolution, proposed by Mr. Brock and seconded by Mr. Vais Agnew, was carried unanimously :—

“ With reference to letter from the Secretary of U. P. A. S. I., to the Chief Secretary to the Government of Madras, Judicial Department, dated the 29th August 1907, this Association hopes that the reference to the amendment to Section 85 makes it clear that what is wanted is that a maistry having been convicted under *any clause* of Section 24, may still be held liable under the clauses of Section 85.”

The Honorary Secretary was instructed to write to the Honorary Secretary, Wynaad Planters' Association, and to the Secretary of the U. P. A. S. I., with reference to the above resolution.

5. An informal discussion with reference to the proposed scheme for the employment of a Scientific Officer followed.

6. Votes of thanks to the chair and to Major Copeland for the loan of the room terminated the proceedings.

(Signed) W. MULLALLY, (Chairman),

(„) C. H. BROCK, (Honorary Secretary).

Wynaad Planters' Association.

Meeting of 11th September 1907, at Meppadi Club.

PRESENT.—Messrs. C. E. Abbott, H. Atzenwiler, E. A. Hughes, B. E. Malcolm, S. H. Powell, Jr., A. West, H. B. Winterbotham and H. Waddington, Honorary Secretary. Visitor—Mr. W. A. Smith, Superintendent, Post Offices. Mr. E. A. Hughes in the Chair.

Proceedings of last meeting were confirmed.

Read general correspondence with reference to business of the last meeting—Approved.

1280. *New Member.*—Mr. D. H. McLeod, proposed by Mr. H. Atzenwiler, and seconded by Mr. E. A. Hughes, was elected.

1282. *Rubber.*—Mr. Malcolm informed the Association his letter, referred to at the last meeting, was written under a misapprehension of the facts.

1283. *Roads No. 38, Chundale—Sholadi.*—The Honorary Secretary was asked to call the attention of the District Engineer to the fact that there appears to be no metal ready on miles 6 and 7, which are already wearing into holes, and no provision appears to have been made between Chundale and Meppadi for the repairs, which will be shortly required.

1284. *Roads No. 35B, Sultan's Battery—Nellakota.*—The Association notes with regret decision arrived at to convert road No. 35B into a bridle path and hopes there is still time to reconsider the matter before 31st March next.

1285. *Plague Passes.*—Resolved that the Collector be asked to appoint all writers on Estates Local Authorities, as was done in the case of planters.

1286. *Post Office.*—Read letter from Honorary Secretary to the Superintendent of Post Offices, Calicut, who was present, and explained that he hoped to be able to meet the wishes of the Association by making despatch of mails from Velleramulla, Meppadi and Vaitri two hours later than at present. Recorded with satisfaction, and the Association thanks Mr. Smith for his readiness in acceding to its request.

1287. *Non-Service of Warrants.*—Mr. West brought to the notice of the Association, that although he received letters from a maistry at his village, he could not get the man arrested although warrant had been sent some time ago. Mr. West was asked to send particulars as to name, etc., and the Honorary Secretary was instructed to address the Resident, in Mysore.

Mr. Hughes cited a similar case of a maistry in the Coimbatore District and promised to send the Honorary Secretary particulars. The Collector of Coimbatore will be addressed on the matter.

1288. *Sanitation.*—Mr. Waddington called attention to the insanitary condition of the roads in Wynaad and was requested to bring the matter to the notice of the Deputy-Collector.

1289. *U.P.A.S.I. Conference.*—Messrs. Waddington and Atzenwiler desired it should be recorded that in bringing forward the amendment:

"That this Association is not in favour of any further special action as to the withdrawal of the Act at the next U. P. A. S. I. meeting, unless it is brought up by other Associations,"

on the 10th July last, they did not intend that in its present form the Act was found to work better than anticipated. They think that in its present form, and even more so if amended on lines proposed in U.P.A.S.I. Circular No. 46, the Act is more valueless than Act XIII. of 59 and it would be in the interests of the Wynaad if the Act were withdrawn. Recorded.

U. P. A. S. I. Meeting.

Mr. Abbott read the following report, which was ordered to be printed:—

"It is usual for your Delegate to supplement what has appeared in the papers by reporting on any subjects of special interest to his own Association.

Coffee Cess.—You authorised me to agree to the principle of a compulsory cess, and this is what the U. P. A. S. I. has asked for conditionally on the various countries mentioned in Mr. Sanderson's scheme giving their support.

Scientific Officer.—Rs. 3,000 a year for 3 years has been subscribed by planters towards this object. The Governments of India, Madras and Mysore are to be asked for financial assistance, and the Government of Madras is to be asked to lend an officer, who is to devote the whole of his time to subjects of interest to planters and is to work under the control of the U. P. A. S. I. The cost of this scheme is estimated to be Rs. 14,000 per annum.

I ought to mention that this is not quite what the Mysore Delegates wanted. They would have preferred to have the Scientist engaged by the U. P. A. S. I. and entirely at its disposal. They finally agreed to the resolution which is printed.

Labour Recruiting and Emigration.—Mr. Martin gave us some interesting information about the methods of recruiters. He and Mr. Hodgson were requested to interview the Madras Government and to enquire what can be done to protect the interests of planters in Southern India.

Labour Law.—This was a subject which I hoped would occupy a very small space in our proceedings. The only instructions I had were to oppose a proposed amendment which no supporter of the Act even had a good word to say for but, on my way to Bangalore, Mr. Waddington gave me a letter from the Chief Secretary which he had just received, in which certain new amendments, and alterations of promised amendments were proposed. You have all seen this letter, which has been published in the *Planters' Chronicle*, as well as the resolution passed by the U. P. A. S. I. on it. I agreed to this resolution, though I refused to second it, and told the meeting distinctly that I could not bind my Association. As an immediate reply was asked for, personally I think it was the best we could make. I am partly responsible for the memorandum of opinions, which Mr. Brock and I drew up with Mr. Hodgson's assistance. The repudiation of the proposed alteration of Section 29 is sufficiently emphatic.

The only other matter in this connection that I need refer to is that Mr. Hodgson spoke of a resolution we recently passed not to take any special action at present for the withdrawal of the Act, as if it brought the whole of the Associations subscribing to the U. P. A. S. I. into line in its favour.

I explained what the position of the Wynaad Association was. As to the rest, some Associations have declared against the Act, and I can answer for it that not a single district has shown the least intention of asking for its introduction. Nor do I believe that the Government of India intends to inconvenience Zemindars, Millowners and employers of labour including planters throughout the Empire by repealing Act 18 of 1856. The truth is, as everyone who has attended the U. P. A. S. I. Meetings in recent years knows, that while Delegates from other Districts are sympathetic to us in our difficulties, they do not look upon the matter as one that has much personal interest to themselves.

Money Order Commission.—We have again asked Government to reduce this to reasonable rates. We have the support of the Madras Trades' Association, with which body the Secretary, U. P. A. S. I., is to co-operate.

The recently announced reduction in postal rates leads one to hope that this anomaly may be removed.

Finance.—You will have seen the remarks that were made on this subject, The U. P. A. S. I., as you know, has lost the whole of its reserve fund by Messrs. Arbuthnot & Co.'s failure.

For the present it can pay its way. But it is not in a position to help forward any schemes for the benefit of planters that require pecuniary assistance. I have a statement here which shows the maximum and minimum subscriptions that the various Associations might pay and also their actual payments. Mr. Richardson, the Central Travancore delegate, has carefully gone into the subject, and his figures will be published in the Book of Proceedings.

With one exception, all the Associations pay considerably more than their minimum, and we pay more than the maximum. The trend of opinion appeared to me to be that the rate of subscription ought to be a fixed one on an average basis.

I was elected Chairman, a compliment which I accept as paid to the Wynad Association."

Resolved that the Association records its hearty and cordial thanks to Mr. Abbott for the work done by him as its delegate at Bangalore and congratulates him on his appointment as Chairman.

1290. *Madras Planters' Labour Law*.—Read U. P. A. Circular Nos. 46 and 48. Letters from Secretary, U. P. A., of 4th September and from Honorary Secretary, Nilgiri Planters' Association.

Resolved that this Association is of opinion that a maistry or sub-maistry, having been convicted of any offence under Section 24 of the Act should still be held liable under Section 35.

That part of the letter from Secretary, U. P. A., to Chief Secretary of Government, Madras, dated 29th August 1907, relating to amendment proposed re Section 29 of the Act was approved.

With reference to other proposals, members present thought time for further consideration of the question was necessary. Decided to postpone matter till next meeting.

1291. *Papers on the Table*.—U.P.A.S.I. Circs. Nos. 44 to 48.

I.T.A. Circs. Nos. 11 to 14 and 16.

Production of Tea 1906.

Tea Export Statement No. 72 July.

Tapping Rubber *Funtumia elastica*.

Report Gov. Parks and Gardens, Nilgiri is.

A vote of thanks to the chair terminated the proceedings.

(Signed) ERNEST A. HUGHES, *Chairman*.

(„) H. WADINGTON, *Honorary Secretary*.

Notice.—Although election of new members is by ballot there is no provision in rules to that effect. Notice is given that at next meeting it will be proposed to alter Rule V. by inserting between words "Meeting and elected" the words "balloted for."

Reporting on the trade of the United States for 1906 Mr. Seymour Bell, British Commercial Agent, states:—

There is a very satisfactory improvement in the quantity of tea imported in 1906 from the United Kingdom and East Indies. This was in spite of a decrease of about 7,250,000lbs., in the total imports. There was a decrease in the imports from China and Japan, the chief sources of supply, of over 10,500,000lbs. The total imports from the United Kingdom, British North America and the East Indies amounted to about 19,000,000lbs., an increase of about 2,750,000lbs. compared with 1905.

In this connection it may be of interest to point out that the Ceylon Tea Planters' Association has appointed a representative, who has his headquarters in New York, to bring before the general public the importance of the products of that colony with especial reference to tea. This gentleman appears to be doing good work, and the result is likely to be an increase of imports from Ceylon in the future. This is, therefore, a very favourable time for British shippers of tea to increase their trade with the United States. The experience of the Ceylon representative has been that many of the large importers of tea were ignorant of the importance of Ceylon as a tea-producing country. It appears to be a strange thing that commercial travellers in tea have not before now brought to the notice of prospective customers the advantages of buying from such an important tea-producing country as Ceylon. There appears to be no doubt that there is more liking for East Indian teas than formerly, and if the business is gone after in a proper manner, it ought to show a favourable result.

THE INDIAN TEA ASSOCIATION, (London).

The following are extracts from the report of the General Committee for the year 1906-07 :—

The Indian Tea Crop of 1906.

The total quantity of tea exported from Northern India *via* Calcutta and Chittagong, between the 1st April, 1906, and the 31st March, 1907, amounted to 221,252,808lbs., compared with 202,895,489lbs. for the previous year, or an increase of 18,357,314lbs. over the crop of 1905.

The quantity of Tea exported from Southern India, during the same period (1st April, 1906 to 31st March, 1907), was 11,210,827lbs., against 11,016,147lbs. in 1905, and 9,960,060lbs. in 1904. The total exports, therefore, from Northern and Southern India amounted to 232,463,640lbs., as compared with 213,911,686lbs. in 1905 and 213,586,332 lbs. in 1904.

British Import Duty.

At a meeting of the Standing Joint-Committee of India and Ceylon, it was decided to ask the Chancellor of the Exchequer to receive a deputation, in order to represent to him the injustice of the present duty on Tea, and to urge its reduction. A letter was addressed to the Chancellor of the Exchequer on the 6th February, signed by the Secretaries of the Indian and Ceylon Tea Associations, to which the following reply was received the next day :—

"Treasury Chambers,"

"Whitehall, S. W., 7th February, 1907.

Dear Sir,

"I am desired by the Chancellor of the Exchequer to acknowledge the receipt of the letter signed by Mr. Leake and yourself under date the 6th instant, asking him to receive a deputation of those interested in British-grown Tea, and in reply, to say that, while thanking you for your offer to wait upon him, he does not think there would be any advantage in his receiving such a deputation at the present time."

"Yours faithfully,

(Signed) JOHN BRADBURY."

It was therefore agreed to send in a joint memorial on behalf of your Association and the Ceylon Association in London.

1st March, 1907.

[THE MEMORIAL.]

THE RIGHT HONOURABLE

HERBERT HENRY ASQUITH, K. C., M. P.,

Chancellor of the Exchequer.

Sir,

We, the undersigned Associations, representing producers of Tea in India and Ceylon, have the honour to address you on the subject of the Import Duty on Tea.

In 1908 and 1904 we memorialised the then Chancellor of the Exchequer, and again in March last, we had the honour to address you, pointing out that, for 11 years previous to 1901, with a duty of 4d. per lb., the increase in consumption of all Teas in the United Kingdom averaged 5 million lbs. a year, but since that date, until last year, with the duty at 6d. to 8d. per lb., consumption had remained almost stationary. That the check in consumption was due to the higher duty seems to be proved by the fact that the remission of 2d. per lb. by your predecessor in 1905, and of 1d. by yourself last year, has had the effect of increasing duty payments no less than 11,000,000 lbs., as the following figures for the calendar years show :—

1901..	..	..	..	..	..	255,878,082 lbs.
1902..	..	..	..	..	..	254,440,188 "
1903..	..	..	..	..	..	265,865,958 "
1904..	..	..	..	..	..	256,660,268 "
1905..	..	..	..	..	..	259,090,880 "
1906..	..	..	..	..	..	270,099,895 "

It is necessary, however to point out that some part of this increase is probably due to the replenishment of duty paid stocks, which had been reduced to

the smallest possible limit for some time previous to the introduction of your last Budget, on account of a well-founded anticipation of a reduction in the duty.

We would further bring to your notice that previous to the imposition of the War Tax in 1900,—of which *ld.*, it must be borne in mind, still exists—there had been a regular increase in the per capita consumption of Tea.

The maximum was reached in the year 1901, but since that year has been a decrease until last year, the figures being as follows :—

1901...	...	...	...	...	...	6.16 lbs. per hd.
1902...	...	...	...	...	...	6.06 " "
1903...	...	...	...	...	...	6.03 " "
1904...	...	...	...	...	...	6.00 " "
1905..	...	...	...	...	...	6.00 " "
1906 ..	...	...	...	...	...	6.18 " "

It will be seen that the per capita consumption last year is practically the same as it was in 1901, and although we do not claim that the increase will go on to an indefinite extent, we do state that there is no reason why it should not increase to the level of the consumption in Australia and New Zealand, where the per capita consumption is 7 lbs. and 6.64 lbs. per head respectively. An increased consumption of many millions of lbs. of Tea in the Home market may reasonably be expected if only a further reduction in the duty can be obtained.

Further we would like to point out that the present duty is equal to a tax of 75% on the average value, and, as stated in your Budget speech last year, it is "still by far the highest, in proportion to its value, of all the taxes levied on articles of food apart from alcohol." Coffee bears a tax of 25%, and Cocoa only 13%. Consequently, the principal temperance beverage of the country bears an unduly heavy impost. A heavy duty is apt to defeat its object—*viz.*, to increase its revenue—by reducing the consumption and thereby curtaining its productive value.

It is important to state that the reduction of the duty by *ld.* per lb. in April last was of too low monetary value to have any sensible effect upon retail prices of an article which is so generally sold across the counter in quarter-pound and even two-ounce packets. The force of retail competition, however, undoubtedly compelled distributors, for a time at least, to give better Tea at the old prices.

We may mention that the rise in duty affected the Tea-producing industry very severely, and if it had not been for the activity of those engaged in pushing Tea into new markets, in several of which there is no duty levied at all, and the good fortune that these new markets responded to the efforts made, a very grave loss of income would have been inflicted on those who derived their living from Tea-gardens, to whom a further reduction of duty would only be an act of bare justice.

We beg to remind you that it has been clearly demonstrated that an excessive duty not only injures the consumer, but also the producer, which fact you emphasised in your Budget speech last year, in the following words :—"Again, an excessive duty on Tea injures the producer as well as the consumer, and in this case—as I think my predecessor pointed out last year—the producer, in nine cases out of ten, is one of our fellow-subjects developing in India or Ceylon the resources of the British Empire." There is, therefore, no occasion for us to put forward further evidence on this point.

From the Imperial point of view we would respectfully bring to your notice that the Tea Industry has been of material benefit to India and Ceylon. Large tracts of unhealthy waste land have been brought under cultivation, contributing substantially to the land revenue of the Empire.

Hundreds of thousands of native labourers have been removed from the congested districts, and are now employed on Tea Estates, or comfortably settled down in villages in hitherto unexplored jungle land. This enterprise has been the means of opening out railway communication in both countries, and is by far the most important industry in the Province of Assam and in the Island of Ceylon.

In conclusion, sir, we would urge on you the inexpediency of imposing on any article of food, especially the working man's teetotal drink, a burden as great as that which Tea has now to bear, a burden, which, at the same time, weighs heavily upon a great industry now almost entirely in British hands, built up by British energy, and on which British capital of over £85,000,000 has been expended. We therefore trust, sir, that you will be able in the present year to make a further reduction in the existing duty.

A Memorial from the Anti-Tea Duty League, signed by 70 Members of Parliament, was also addressed to the Chancellor of the Exchequer.

Unfortunately, the Chancellor did not reduce the duty, although from the concluding remarks in his speech in the Budget debate last year—reported in *The Times* of 2nd May, 1906, when he said, "I can assure the Committee that when I found that my resources were not sufficient to reduce the tax by 2d., as I should have liked to do"—it was somewhat confidently expected that a reduction of at least 1d. would be made.

In his Budget speech of 18th April, 1907, Mr. Asquith remarked:—

"The reduction of the Tea Duty by one penny was followed by an increase in the consumption of four and a half million pounds. The year in Tea has been a record one as regards imports, exports and consumption. The great increase throughout the world in the demand, particularly for Indian Teas, has raised the price, but there is little reason to doubt that but for the reduction of duty there would have been a still higher raise."

And

"Then there is the case of Tea and Sugar. The Tea Duty was reduced last year by 1d. It now stands at 5d.—only 1d. above the lowest point it reached before the time of the War—and I am satisfied from a careful review of the existing conditions of the trade that any further attempt at this moment to deal with the duty in the way of reduction of another penny would not be of any real profit to the consumers of Tea."

On the consideration of the Budget resolutions, reported in *The Times* of 2nd May, Mr. Fletcher, (Hampstead), moved to reduce the Tea Duty from 5d. to 4d. He claimed the support of those who objected so much to heavy taxes on the food of the poor, as the reduction he proposed would ensure to the consumer the benefit of last year's reduction.

The Chancellor of the Exchequer said that he "should be very glad to see the Tea Duty reduced to 4d., though he must confess that, as between the Tea Duty and the Sugar duty, if he had the chance of dealing with indirect taxation at all, he would rather deal with the sugar duty, because Tea, if, in a sense, a necessary of life, was rather on the luxury side of the line, while sugar was a real necessity as well as a raw material. But he did not ask the House to accept this proposal—in the first place because he could not afford to sacrifice revenue; and in the next place, because a reduction of 1d. in existing circumstances would not appreciably benefit the consumer. Last year he gave reasons for the view he then held, and still held with modifications, that a reduction of 1d. on the 6d. duty would go to the consumer either in diminished price or improved quality. The reduction had gone to the consumer to a considerable extent in improved quality, though not much in the diminished price. But the conditions of the Tea trade had altered very much in the course of the year. There had been, for reasons not easy to determine, a large, and, perhaps, an abnormal increase in the demand for Indian tea with foreign countries, and particularly from Russia, with the result that the wholesale price of Tea had gone up, in spite of the reduction of duty, by something like 1d. a lb. compared with this time last year. He had taken the trouble to ascertain the opinions of those most conversant with the matter, and he was advised that in the existing state of the trade, with this abnormal demand, that a further reduction of 1d. would certainly go to the producer or middleman and very little to the consumer in this country. Weighing all these cumulative considerations, it appeared to him that, although he should like to see the Tea Duty brought back to the level at which stood before the war—and it had already been reduced from the War rate of 8d. to 5d.—the proposal would not, in existing conditions, have any satisfactory economic or social result."

Green Tea.

It was the intention of your Committee and also of the Cess Committee not to continue the bonus on Green Tea after last year.

On the 11th December last, however, Mr. Blechynden wrote as follows:—

"While in New York recently, I learned, to my satisfaction, that the work done by the fund last season was continuing to give results, and that a steady demand is being created for India Green Teas. During my stay in New York, part of my time was occupied with arrangements relating to the operations for this season. I found, to my regret, that in the event of any increased demand for Indian Green Teas, the supplies in sight would be insufficient for the requirements. I caused further inquiries to be made, and having learned that there was likely to be a considerable shortage even for present requirements, I sent you the message referred to, which I now confirm.

"It is now too late for me to make any change in the arrangements I made with various firms for pushing Indian Teas, although I now realise that, unless full supplies are available, the efforts being made will not only be wasted, but may even be productive of some harm to our interests. In my letter of the 6th March, dealing with the position of India Green Teas at that time—March last—I set forth very fully the troubles and disappointments likely to arise in the event of there being an insufficient supply of Green Teas, which I anticipated. I have nothing fresh to add to the remarks I then made, save only that I am even more impressed with the necessity of some arrangement being made for the supply of sufficient quantities of India Green Teas to meet the demands of those we ourselves have been instrumental in interesting in this class of Tea. I do not think it is a sound or beneficial policy to expend money to create a demand for an article, the supply of which is apt to be discontinued at a critical time. Hereafter should market conditions or other causes make it desirable to resume the manufacture of India Green Teas, the work of interesting those who have found their previous labours wasted will be much more difficult and expensive."

The Executive Committee of the Cess Committee also cabled previous to the Cess Committee Meeting of 29th January last, asking if your Committee would recommend the continuance of the bonus on Green Tea for another year, considering the improvement which had taken place in the Black Tea market.

Your Committee came to the conclusion that unless some inducement were offered for the manufacture of Green Tea this year there is a great probability that little or no Green Tea will be manufactured, owing to the large advance in price of common Black Teas. Taking into consideration the money already spent to develop a trade in India Green Teas, and the strong views expressed by Mr. Blechynden, your Committee decided to recommend the bonus being given for another year on a similar quantity and on the same terms.

As mentioned in the last report, tenders were accepted for 2,411,800lbs. for the 1905-06 bonus of 9 pies, out of which quantity the Cess Committee anticipated, according to their last Annual Report, that 2,228,510lbs. would actually be subject to bonus.

With regard to the 1906-07 bonus of 6 pies, the Cess Committee state that the total quantity so far offered for the allotment of bonus is 1,882,800lbs., out of 2,000,000 lbs. sanctioned.

The quantity on which the first instalment (3 pies per lb.) has been paid from the 1st June, 1906, to 30th April, 1907, is 1,482,801lbs. Of this quantity the second instalment has been paid, to 30th April, on 882,882lbs., on account of tenders having been completed.

Tea is gradually becoming more popular in Belgium, and there are many retail houses which supply tea to retail dealers. It is, however, says the British Consul, not so easy to obtain really good tea as might be expected, and there is room for a good deal of enterprise in this connection. There is no import duty on tea, so the retail selling price should not be high.

INDIAN TEA ASSOCIATION, (Calcutta).

Mosquito Blight.

In a Report on Mosquito Blight in certain gardens in the Dooars, Mr. Hutchinson remarks:—

The most marked feature of the attack was the very obvious preference of the blight for the low Jât bushes, and the comparative immunity of the indigenous variety; this was the case on all the gardens visited: the readiness with which the former kind succumbed to the attack was no doubt partly due to the comparatively great age and consequent lack of vitality of the bushes, which showed no signs of recovery, nor any promise of further growth this season.

The methods of dealing with this blight recommended by this Department has been so far (1) Catching the insects by hand. (2) Spraying the bushes after pruning with Kerosine emulsion. Both these methods, I am informed, were constantly adopted on some of the gardens affected, while one garden has not been treated for Mosquito in any way and does not appear to be worse affected than the other three Estates.

In view of this condition of affairs I have made the following recommendations:—

- (1) That all the affected gardens should combine to eradicate the blight.
- (2) That spraying should be carried out in the cold weather, not merely once, but two or three times, so as to destroy those insects which were not hatched out at the time of the first spraying.
- (3) That a system of thorough cleaning out of the bushes should be carried out in pruning, to allow of the emulsion reaching every part of the bush.
- (4) That a policy of replanting should be adopted, providing for the gradual replacement of the poor Jât tea by indigenous bushes.
- (5) That in view of the impossibility of dealing effectively by spraying with such large areas of tea, a method of gradual eradication should be adopted on the following lines: Areas of convenient size should be isolated by planting belts of jungle or by allowing the bushes to run up; these areas could then be thoroughly freed of the blight and would tend to remain so, as the mosquito does not fly at any height above the ground; in this way a certain proportion of the garden could be kept free from the blight, whereas under present conditions this is impossible owing to the invasion of any treated area by blight from the surrounding tea.

Other palliative measures would include an extended system of catching, which I should recommend as a more rapid method than that at present in use, by the spreading of temporary movable screens through the tea, smeared with any sticky material locally obtainable, such as rice water, paste or gum from sau trees, and driving the mosquito down wind into these, using sulphur torches as well as beating the bushes.

Reviewing the whole position, it may be said:—

- (1) That the severity of the present attack is due to exceptional conditions of weather and not to any lack of precautions on the part of the garden managers.
- (2) That such a severe and early attack is not likely to recur next season.
- (3) But that in view of its possible occurrence in future years, the above-mentioned measures should be adopted.
- (4) In addition to these palliative measures, the system of replanting above recommended should be made an essential feature of the future policy of gardens possessing considerable areas of poor jât plant. This is the more advisable, inasmuch as the exceptionally good quality of the soil in this district should make it very well worth while to spend considerable sums of money in substituting good Jât tea for any poor hybrid bushes.

THE PLANTERS' ASSOCIATION OF CEYLON.**The Thirty Committee.**

The following are extracts from the Franco-British Exhibition :—

MISCELLANEOUS.

Submitted formal correspondence.

Read letter from the Colonial-Secretary re Franco-British Exhibition intimating that a further appeal had been made for Ceylon to participate in this Exhibition and that in the opinion of the Government, Ceylon could not be adequately represented at a cost of less than £10,000.

Resolved :—That the Committee is of the opinion that the Colony should participate in the Exhibition.

CARDAMOM CESS.

Resolved :—That the sanction of Government be obtained to the expenditure of a sum not exceeding Rs.10,000 for advertising Cardamoms and distribution of samples.

PROGRAMME FOR 1908.

Submitted Messrs. Ranton and Courtney's suggestions for closing campaigns on the Continent and in America.

Resolved :—(1) That Mr. Ranton be advised that the Committee are prepared to vote £5,000 for 1908.

(2) That the Committee approve of continuing advertising Ceylon Tea in America but in an enlarged form on the basis indicated by Mr. Courtney and that he be requested to recommend an Advertising Agent to supervise expenditure.

JOINT CAMPAIGN.

Resolved :—That the Indian Tea Cess Committee be informed that the "Thirty Committee" are in favour of continuing Ceylon's contribution to the Joint Campaign in America on the present basis for year ending March, 1909.

COFFEE.**The Hamburg Market in 1906.**

The Hamburg coffee market was seriously affected during 1906 by the abnormally large Santos crop which the efforts of Brazilian exporters succeeded in disposing of at fairly good prices under the operation of the so-called valuation law. For various reasons, but especially owing to the diminution of stock at the trade centres, prices continued to rise till the end of August; but from September onwards the market was much influenced by the enormous shipments to Europe, and in spite of the large purchases made by the S. Paulo Government, a sharp fall in prices in the last quarter of the year could not be prevented. A regular business in West Indian coffees is said to have developed owing to stocks in the interior of Germany having dwindled in spring and summer to such an extent that the dealers were compelled to make fresh purchases. The low prices for washed coffee in comparison with other years also advanced the sales. The total imports from all parts into Hamburg during 1906 amounted to 8,851,525 bags against 8,191,871 bags in 1905, and at the end of December the stock at Hamburg amounted to 1,689,688 bags of which 1,578,466 bags were Brazilian. The imports into Hamburg of La Guayra amounted to 121,000 bags, and of Guatemala, Costa Rica, etc., to 556,000 bags, against 69,000 bags and 624,000 bags, respectively, in 1905.

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Writing in the *Chemiker Zeitung* lately upon the progress made by agricultural chemistry during the year 1906, Professor Dr. Stutzer devotes some space to considering the properties of calcium nitrate as a fertiliser. He remarks that no large quantities of this salt have yet been placed on the markets, but now that the initial difficulties of manufacturing it electrically have been overcome in the Birkeland and Eyde process through the improvements effected by the Badische Anilin und Soda Fabrik, the material will doubtless soon be obtainable on a large scale.

RUBBER.

Rubber in Ceylon.

In the course of remarks on Present Products and Crops of Ceylon the Hon'ble Mr. John Ferguson said at a meeting of the Board of Agriculture, on September 2nd :—I have already referred to cardamoms and camphor and then comes

THE YOUNG GIANT RUBBER.

of which 150,000 acres now planted may be giving before Your Excellency leaves us—I trust long before that day comes, if we may be favoured with a prolongation of the term—some 20 to 30 million lbs. of this valuable product. Altogether, the total area cultivated makes up 8½ million acres out of over 15,000,000 acres in the island, much of which, of course, is waste; but there is certainly plenty of room for development both in planting and grain culture. More tea as well as rubber and cocoa and cocoanuts as well as much more of local rice are sure to be wanted. At the same time, Ceylon, after all, is more of a tree and leaf (palms, rubber and tea) producing than a grain-growing country. The alluvial valleys of Bengal and Burma are unrivalled in richness. But wherever irrigation facilities are given to them the Sinhalese and Tamils ought certainly to be urged to grow more rice. Finally, I would mention that while some more expansion even of rubber may be anticipated as soon as the Surveyor-General is able to make lands available, in connection with tea and camphor, I would draw attention to the well-nigh 20 to 25 miles of unutilised country between Dimbula and Hamputala alongside a first-class broad gauge railway. The ruling of the Secretary of State to have no more forest land sold or cleared above 5,000 feet is no doubt a wise one; but whether for growers of camphor if not tea, there might not be a modification by lease or otherwise, is well worthy of consideration.

Raw Rubber Test.

Mr. J. B. Carruthers writes in the *Agricultural Bulletin of the Straits*, July, 1907 :—

If a planter can by testing his rubber assure himself that he is producing a break of rubber which will pass high when similarly tested by the purchaser, he is less likely to be working in the dark when changing and improving his methods of preparation.

This apparatus was designed as a simple and accurate machine to carry out a physical test of rubber so that the planter on the estate could satisfy himself as to the resilience and elasticity of his rubber before shipping it and also in the hope that the buyer might find it useful to supplement his manual and other tests by using such a machine.

The principle of the apparatus is to submit a piece of rubber of a standard size (obtained by cutting with a sharp knife with paralld blades) to a constantly increasing strain of known amount during a constant time and temperature. In order that this machine should be of use in brokers' offices and on plantations as well as in scientific laboratories, it was made as simple as possible and quartz sand was chosen as the substance used for the weight in straining because it is less affected by temperature than mercury or water and is more easily cleaned than either of these. The sand used should pass through a No. 4 sieve, i.e., having 40 meshes to the inch.

The apparatus consists of a large copper case with a water jacket at the base so that the interior can be kept at a constant temperature. The case has a glass door in front so that readings may be taken without altering the temperature.

A graduated glass cylinder containing quartz sand is so fixed that from the outside the sand may be made to flow into a receiver which is attached to the hanging piece of rubber which is to be tested. Pointers running on a finely graduated scale can be moved from outside the apparatus to determine the original length of the rubber and the extension owing to the pull by the strain of the inflowing sand.

The process is as follows :—

A piece of rubber of a given size and convenient size and shape is 15 centimetres (59/10 inches) long by 7 centimetres (2 $\frac{3}{4}$ inches) wide and 2 m. m. thick (about 1/10th inch) is placed between the clamps. These clamps consist of two parallel rods one of which moves up and down and the rubber is folded over so as to clamp itself. I found that all screw clamps, however accurately the surface had been prepared, did not hold the rubber equally and pulled slightly away at some point.

After the rubber has been in the clamps for a few minutes, the pointers are adjusted and two horizontal marks made at a distance of 5 centimetres apart on the rubber, these lines are made with a fine Indian ink point. The hanging vessel is then put on to the lower clamp. The stop-cock at the bottom of the glass cylinder is then opened and an equal and constant flow of sand passes into the receiver which is attached to the lower clamp. The time taken for the sand to run through is about five minutes, but this can be varied with the aperture of cylinder and the fineness of the sand. When the whole of the sand has passed into the hanging receiver the pointers are adjusted to the marks previously made and a reading taken which according to the elasticity of the rubber being tested may be 100 per cent. or more of the original measurement *viz.*, 50 centimetres.

The stop-cock at the bottom of the hanging receiver is then opened and the sand is allowed to flow out the strain being thus released as gradually it was imposed.

When the vessel is empty it is removed and after two minutes the pointers are again adjusted and a third reading taken which according to the *resilience* of the rubber approximates to 5 centimetres the original length.

In a series of tests made from pieces of biscuit rubber pieces taken from different places of the same biscuit gave practically exact results, while samples of biscuits from plantations of different age varied considerably. In these preliminary tests of the efficiency of the apparatus the result showed that the figures obtained were reliable, and though I myself or others may be able to improve or simplify the apparatus, yet as a practical curing house and office test it should be of use in arriving at a fixed method of judging the qualities of rubber either plantation or Brazilian Pará.

The use of this apparatus on various qualities of rubber and under varying condition has given me useful data in relation to the physical qualities of plantation rubber. The length of time during which extension takes place when a weight is gradually imposed, and after the weight has all been placed and the length of time for recovering back to approximately the original dimensions show interesting variations in different qualities of rubber.

It is the physical qualities of resilience and elasticity that are of value in India rubber and the chemical compositions are only of interest in so far as they are correlated with these physical properties. A physical test is therefore the most important, and this is recognised by the most careful manufacturers who test for resilience after they have manufactured, *i.e.*, mixed and vulcanised their rubber.

The apparatus as described was made from my drawing by Messrs. Baird and Tatlock, but owing to my absence in the Far East certain improvements and modifications which occurred to me after designing the plant of the machine could not be made.

Rubber Tree Abnormalities.

BURRS ON THE TRUNK.

The occurrence of burrs on the trunk of the Pará rubber, especially in trees that have been cut or tapped (says Mr. H.N. Ridley in the *Straits Agricultural Bulletin*) has frequently been noticed by planters, and several letters have been received from time to time by the Editor containing enquiries on the subject. A portion of one letter from Mr. Burgess I append, with some sketches by him. The burrs are more or less rounded woody knots or tumours projecting from the bark. In small samples they are very easily knocked out

of the trunk, and are seen to be more or less globular or pear-shaped nodules of wood ending in a short point, directed towards the trunk of the tree. They are covered outside with thick bark. And when knocked out of the tree leave a corresponding depression. In other cases they are larger and more irregular in outline, and cannot be detached. The largest I have seen is on the erect branch of a prostrate rubber tree in the Botanic Gardens in Singapore. It is irregularly hemispherical or rather half oval, and measures 18 inches across, transversely, a foot long vertically and about 8 inches in thickness.

THE ORIGIN AND CAUSE

of these burrs is this. The Pará rubber tree, like many others, produces during its growth a number of buds, which never developing into branches, unless from some accident, become in time covered with a later growth of wood, and are known as dormant buds. If a tree possessing dormant buds is cut down to near the base, these dormant buds may develop and appear as shoots. As every one knows in felling jungle, if the stumps of the tree are not dug out, many will throw out shoots which may develop into full sized stems. These are derived from the dormant buds. Frequently, too, use is made of dormant buds for propagation of plants which are otherwise difficult to reproduce. Thus in some of the *Araliaceæ*, such as *Trevesia eminens*, the stem frequently remains simple without branching. In order to make it throw out additional side branches either to serve as cuttings or to improve the appearance of the tree, it is only necessary to make incisions through the bark of the stem here and there should one of these cuts pass through the point where there is a dormant bud, this bud will commence growth and develop into a branch. If the dormant buds are too thickly covered with wood, so that they cannot push through to the surface and from shoots.

THEIR GROWTH IS ARRESTED, AND A WOODY TUMOUR IS THE RESULT.

In examining a large series of trees which have been tapped in various way one observes that in ordinary herring-bone tapping the occurrence of burrs after repair of the wound is not very common. They usually occur at the top corner of a cut, and are small. In the old Brazilian system of single taps with a small chopper, they are very abundant, and in some cases have thrown out shoots. In the case of the very large burr referred to above, the tree had not been tapped at that point, the injury was probably caused accidentally by a bough or some such thing striking it. Casual careless wounds caused by coolies or others hitting a tree with a parang may cause a burr to form. In the case of the small single bud burrs, the woody nodule is gradually pushed out of the trunk and can be removed by a sharp rap from a stick when the wound will soon heal. Larger ones, if objectionable, can be cut off with a chisel, and the wound allowed to heal; but unless necessary this is not recommended in the case of a big burr, as the wound might not readily heal. The burrs and tumours in no way injure the vitality of the tree, or interfere with its health, but are certainly inconvenient for tapping. Most old trees, however, have very irregular bark, and often regular wood development, so that one does not get the smooth easily cut bark of the young tree, and tapping tools suitable for the latter are not suited for the former. Indeed the greater thickness and hardness of the bark of a twenty-years old tree alone would cause a modification of the tools necessary.

WIND TWIST.

On this subject Mr. Ridley says:—In positions where trees are subject to strong winds from one direction the trees take on an odd form, which is known as wind twist. There are some very good examples in the Botanic Gardens. The trunk of the tree, chiefly in old trees, shows a series of spiral ribs usually rising from right to left. Sometimes the trunk is distinctly flattened in the direction facing the wind. Where the wind has had the greatest force, the trees are very curious. There is a close series of transverse ridges with depressions between, on the side facing the prevailing wind, from the bottom of the trunk to the top of the higher thick branches. This gives a most curious ladder-like appearance to the trunk. Trees like this are decidedly troublesome to tap as the cuts have to run up and down over the waves of bark and would, and it is difficult to get the latex to run just where it is wanted to flow.

Lecture by Mr. Herbert Wright.

Mr. Herbert Wright lectured, under the presidency of Sir Alfred Jones, to the Liverpool Chamber of Commerce on the 19th August, the subject being "The Financial Aspects of Rubber Cultivation." Mr. Wright in his lecture dealt with various financial considerations of importance to all connected with the rubber industry, declaring at the outset that under favourable conditions the cultivation of rubber afforded a very handsome profit. The capital invested in rubber cultivation in British possessions was immense—amounting to over £14,000,000 paid-up capital. For the half year ending June 30, 1907, no less than £1,850,000 nominal capital had been subscribed by rubber companies registered in England and £175,000 by similar companies registered in Scotland. Finally had not yet been reached, and they would soon see a sum of £20,000,000 as the paid-up capital of rubber companies established in different parts of the world. There were now nearly 800 rubber companies registered in Great Britain, where as he did not suppose that they numbered more than twenty-five years ago. In considering the development of the rubber industry in British possessions, the most important question was that of labour. All rubber estates required a large number of coolies, and he was afraid that in those districts where labour was scarce many disappointments would be chronicled in the near future. An analysis of the returns of from forty to fifty companies showed that the yields of rubber during the past year were very profitable, although when labour was more in demand and rubber fell to a lower price the returns might wear quite a different aspect. During 1906 several companies had declared handsome dividends—ranging from 12 to 55 per cent. in the third year of working, whilst two companies had every prospect of realising dividends of 100 per cent. before the end of the year. It was for members of the Liverpool Chamber of Commerce to see that no effort was spared to place the rubber industry in West Africa on an equally sound basis. He had inspected reports of several well-managed West African rubber and fibre companies, and had been much surprised to learn of the excellent growth of *Pára* and *Funtumia* trees in suitable districts. Many of the measurements compared favourably with those of Ceylon. Mr. Wright proceeded to advise his hearers that it was wiser to start their own rubber plantations in West Africa than to secure a very wide interest in some dividend-paying concerns, and he expressed the hope that a prosperous rubber plantation estate would be established in West Africa before many years were over. The Chairman, referring to a statement that it was impossible to buy land from the West African natives for rubber-growing purposes, declared that it was possible to get land on a lease at a very moderate figure. There was no need to buy it outright, and the native rights on this point ought to be respected; but if a syndicate were formed he was satisfied that they would be able to lease as much land as the required at a nominal rate.

The Tapping of Rubber.

(By J. C. WILLIS).

Conversation with many planters of rubber in the Low-country has convinced us that there is frequently considerable ignorance as to the *theory* of tapping. As this if not remedied may lead to trouble, we propose shortly to visit some of the rubber districts with the object of discussing this and other matters with those actually engaged in the cultivation of rubber.

The all important fact that must be borne in mind is that "renewed bark is not in general ready for tapping under three years." Some people even say four years. In other words, the original bark must be made to last three or four years. Now, at the rate at which some people are cutting it away this will not be the case. I have seen $1\frac{1}{2}$ " cut away in a spiral in two months. Now if this rate of cutting be adhered to, it is evident that the original bark cannot last out the necessary time to allow of the growth of the renewed bark, and consequently that there must come a time when the tree must be left alone, so that no rubber will be collected. This is not as it should be. The tapping should

be arranged to cover at least three, and better four years, on the original bark, either by dividing the bark into sections, one to be tapped every year, or for two years, or by tapping so slowly on the old bark that it will take that time to reach the renewed bark.

The tappings on many estates follow one another at intervals of two days, but there is no need for them to be so frequent—the wound response will appear up to at least a week. If the tappings be less frequent, there is more rubber in the milk, and it would appear that the rubber is better matured.

ONE GREAT FAULT IN THE TAPPING AS AT PRESENT CONDUCTED

is that the cooly cuts away too much bark. He often has the idea that the deeper he cuts the more milk he will get. In actual fact, with the best knives (as tested at the Rubber Exhibition) there is no need to cut away more than about 1/25 of an inch at each cut, and the cooly should be prevented from wasting bark by excessive cutting. We would suggest keeping two or three fair coolies under observation, and testing how much they cut away—say $\frac{1}{4}$ of an inch a month. This should then be set up as a standard, and the width of the tapping should be measured at intervals, coolies who are found to have exceeded this by more than say 10 per cent. being fined. As under these circumstances the cooly will try to leave alone those trees he has over-sliced, he should also be averaged as to the amount of milk from so many trees that he can bring in, and he fined for defect in this, the milk being tested by a lactometer to make sure there is no watering. Or better, keep coolies for tapping only, and examine to be sure they have tapped all their trees.

It has seemed to us that it would be a good thing to give tapping demonstrations at Henaratgoda, and as the large series of experiments is now being put in hand, and tapping will go on daily, this will be done, and anyone who is about to begin tapping should visit the gardens there. There is a Rest-house at Henaratgoda about a mile from the Garden.

A Rubber Factory in Singapore.

Mr. Ridley, F.R.S., writes in his *Agricultural Bulletin*:—

The Netherland Gutta Percha Company (Limited) has lately turned its attention to the manufacture of rubber tyres for carriages of all kinds, and under Mr. Van Ryn is enlarging its premises at Passir Pangang in Singapore. Machinery has been obtained and the work of making carriage tyres has regularly commenced. Mr. Van Ryn manufactures tyres for carriages, rubber plates, valves, and will eventually manufacture other rubber goods for local consumption besides doing all kinds of refining work and other such business connected with rubber for all of which he has a suitable plant. Some rubber scrap was supplied from the Botanic Gardens trees, as also some rubber clot, and from this he has

TURNED OUT TYRES WHICH ARE THE ADMIRATION OF ALL

who see them, and very superior to the usual rubber tyre in use in the East which is we understand, made chiefly of African rubber,

USE OF SCRAP RUBBER.

The scrap, says the manufacturer, is extremely suitable for this work and requires much less treatment than the ordinary hard Pará rubber of the Amazons. The clot rubber, that is the rubber which at certain times clots in the latex cups and cannot be made into picturesque-looking biscuits or sheets, seems as good if not better than the scrap. There is a great field for such a factory in the East and it is unnecessary to point out the saving all round to planter, manufacturer and consumer, in avoiding the expense of having the rubber sent home to be made up and returned here in the form of tyres. Mr. Van Ryn is shortly to make a tour of the planting districts to make arrangements for purchasing scrap rubber for the factory, and planters may soon have a chance of driving about their estates on tyres of rubber grown by themselves.

TEA.

The Ceylon Import Duty on Tea. Ceylon Opinions.

A mercantile gentleman in Colombo says: "While blenders, of course, will favour the abolition of the duty, producers and others who desire the continuation of the purity of Ceylon tea are against any proposal for the reduction, or abolition, of the duty. The lifting of the duty will inevitably result in the swamping of the Colombo market with Indian teas, so much so that the price of the local product must go down, while the low-grade Indians and Chinese and Japanese will be largely used for blending; and when faked packets are sent out as "pure Ceylon tea," the local product must inevitably suffer."

Sir William Mitchell's Views.

Sir William Mitchell, who had read the latest appeal of the Indian planters, gave his views pretty forcibly, speaking to a representative of the *Ceylon Independent*. Taking a broad view of the question as a merchant, and one who had interests in the Island as a producer, he said he spoke from the point of view of the producer, the man who is chiefly interested in the subject.

"I am dead against the abolition of the Duty," said Sir William, "and it will be a bad day for the producer when the Duty is abolished." A great deal of harm will be done to Ceylon Tea, he added, if the Import Duty on tea is taken off. The whole of the Indian Tea imported into Ceylon, he explained, was used for blending with Ceylon Tea together with China and Japan Teas. Owing to the existence of the Duty only a small quantity found its way in, but once the duty was removed there would be enormous quantities of poor stuff shipped to Colombo. All this tea will be taken up for blending and the result will be that the "Ceylon tea" sent out from the island will be nothing of the kind. The abolition would undoubtedly suit the purposes of blenders and people who made up packets. And, continued Sir William Mitchell, "it will also mean that larger quantities of tea will be offered for sale in the Ceylon market and the inevitable result will be lower prices for the producer of Ceylon tea."

The memorialists in their appeal to the Secretary of State mention that the opinion in Ceylon, which was "formerly almost hostile to any reduction," was "steadily growing as to the unwisdom of the present Duty both in the Press, in official utterances and among growers." Sir William Mitchell stated that that this was not so. He could not believe that the hostile feeling was dying off. He also did not think the Indian producer laboured under any hardship, because every possible facility was at present offered him for the sale of his tea in bond.

As for the statement made that there should be no difficulty in providing means to establish a system of efficient inspection by which only sound teas could enter the Colombo market or blending warehouses, Sir W. Mitchell did not think any practicable scheme could be established. Even in America the scheme introduced to keep out poor grade teas did not work well, and in London too not long ago some teas were shut out as being something altogether different to what it was. In Australia as they all knew a lot of rubbish labelled as pure Ceylon tea was a sorry blend, and it was in such directions that the good name of Ceylon tea suffered. "I trust," concluded Sir W. Mitchell "that the Planters' Association and the Chamber of Commerce will stand firm and adhere to the opinion they first held, and that is that it is not desirable that the Import Duty on Tea should be abolished."

The Chairman of the Ceylon Chamber of Commerce.

Mr. Alex. Fairlie, the Chairman of the Chamber of Commerce, who was also seen by a Press representative, explained that the Duty was one which was originally imposed for Revenue purposes, at a time when tea was not grown in Ceylon; and it had only been regarded in recent years by planters and Agents of estates to be a duty which is of advantage to Ceylon producers.

"The request of the South Indian planter," continued Mr. Fairlie, "is that he may be allowed to send his tea to Colombo for sale at this market. At present he can do this only by having his teas placed in transhipment warehouses where, however, nothing can be done in the way of repacking the teas, blending them, or putting them up in small packets."

The Colombo merchants who would like to blend Indian and Ceylon teas to meet the requirements of certain constituents, he added, were by the existing 25 cts. per lb. Duty prohibited from doing so. Russian firms, however, could buy Indian tea in Calcutta and Ceylon tea in Colombo, ship them to Hankow and have them blended there, while the Colombo merchant saw the business of which he might otherwise have a fair share go past him because he did not happen to have a branch of his firm in China or Siberia.

"The fact that British firms with branches here have to blend in London and ship to the Colonies or to America and the Continent," proceeded Mr. Fairlie, "increases unnecessarily the cost of the blended teas as London import and warehouse charges are necessarily incurred even though the cost of blending and packing may be as moderate in London as here."

Mr. Fairlie's personal opinion is that it would be to the advantage of the tea industry of Ceylon as a whole if the Import Duty were abolished. He thought that, in view of the fact that we in Ceylon have to draw upon India for our rice supplies as well as our labourers and that India was a dependency of the same Crown of which Ceylon was a Colony, it did not seem fair that the Duty should continue.

We might add that India might as a *quid pro quo*—if the Duty imposed on tea from India is taken off—remove her export duty on rice shipped to Ceylon, which duty is equivalent to 14½ cents per bushel or about Rs.1,500,000 Revenue to India, and also the 5 per cent. import duty on Ceylon tea sent to India might be rescinded.

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The Growth of Plants.

At the monthly meeting of the Ceylon Agricultural Society on September 2nd, Dr. WILLIS read a paper on the "The Growth of Plants," of which the following is a summary:—

The idea was, he observed, that plants grew better in the dark than in the light. About three years ago Mr. Lock was in Ceylon and conducted some experiments with the giant bamboo, which grew very rapidly. Previously it was thought that light had a retarding effect on the growth, but Mr. Lock found that the light had nothing to do with it. It depended entirely on moisture of the soil. Light and food supply had nothing to do with it. That rather surprised the physiologists, and Mr. Blackman, of Cambridge University, started some experiments which had quite revolutionised plant physiology ever since. Mr. Blackman and other observers followed only one factor at one time and found that it applied to other plant life too. That was of some importance to planters of rubber, tea and tobacco, as their object was to bring about a rapid and vigorous growth. In the case of rubber, tea and tobacco it was of the greatest importance to bring about rapid and continual growth. The usual way was to feed with manure. In 3 out of 5 cases the trees did grow rapidly, but every now and then there were some cases where it did not; it was an insoluble puzzle. There were water, food, temperature and light. The latter were almost beyond their control, and there were two things that they could control—food and water. Now, Mr. Blackman had shown that growth was dependent on one factor alone. In Japan the growth of the giant bamboo depended only on the temperature. That was the clue on which Mr. Blackman worked. So long as there was plenty of water, growth would follow temperature; if the factor lacking was water then manure would be of no use. But if the soil was lacking in food supply then manure would do. For rubber in dry weather—the addition of water was good. If in any given case the addition of water helped growth then manure was of no use. If the addition of manure did not cause growth, then water did no good.

THE CAMPHOR INDUSTRY.

In the course of an Address before the Fifth Annual Meeting of the Farmers' Institute of Hawaii, Mr. Leopold G. Blackman said :—

Source of Supply.

The production of camphor is at present almost exclusively confined to Formosa. The camphor forests of this large island when first visited by Europeans, were very extensive and reached well into the plains. Improvident harvesting, however, gradually reduced them, although fifty years ago, they still covered the lower ranges of the mountains now occupied by tea and other gardens. At that time the demand for camphor was comparatively limited, and the price in consequence was much lower than has prevailed of late years. The work of destruction of camphor trees, however, continued steadily, and the denudation of the forests, coupled with an incessant warfare between the Chinese who controlled the trade, and the inhabitants of Formosa, disorganized the production and rendered the procuring of camphor more and more difficult. These unsettled conditions exercised a direct influence on the price of the commodity, which has perhaps fluctuated as greatly as that of any other agricultural product, with a general tendency always to advance. Since the occupation of Formosa by Japan, a few years ago, the latter country has controlled the production and export of camphor and has established a Government monopoly in this industry, which it jealously guards. The chief result to the consumer of this restriction in trade has been an advance in the price of camphor of about 50%. Another effect which has been brought about, has been the steady decline of the refining of camphor in Europe and the United States, in which countries many refineries of crude camphor have abandoned business, and the process may now be said to have passed into the control of the Japanese.

Supply and Demand.

Hitherto, the export of camphor from Asiatic countries to America and Europe has amounted to about eight million lbs. per annum, of an approximate value of two or three million dollars. As the production of camphor has hitherto been unscientific and improvident, and has been achieved only at the total destruction of the tree which produces it, there has for some years been a gradual and appreciable diminution of the available supply. At the same time the uses of the commodity have greatly increased. These two factors combined, which have a close parallel in those which has affected the rubber market, have brought about a marked advance in the price of camphor which will probably continue for many years. Indeed, as the Formosa natural forests become exhausted and the demands of the smokeless powder and celluloid makers increase, it is impossible to predict to what extent the price may advance, until affected by the scientific cultivation of the tree. Demand has, however, obtained such a start in the race against supply, that the latter hindered with the handicap of some few years necessary to the establishment of plantations and the determination by experiment of the best methods of production and refinement, must necessarily take a long period to bring about a proper economical balance between these two factors. At present there appears very little prospect of low prices and the grower of camphor has at least as alluring an incentive in the way of an eager market as is held out to the rubber planter. As the camphor now produced is practically confined to the Orient, the establishment of the industry in Hawaii is one of promise, as it would be in a most advantageous position to supply the home market and would have in addition the benefit of the tariff, with which the foreign grower has to contend.

Origin of Camphor.

Camphor is produced by several different species of trees, chief among which is *cinnamomum camphora*, a native of Eastern Asia. This may be regarded as the camphor tree proper. It is an exceedingly handsome evergreen, which reaches a height of over one hundred feet. This tree, the source of Formosa camphor, is now being cultivated not only in Ceylon and India, but also in

California and Florida and in many European countries, notably France and Italy. It is said that a large tree will yield over a thousand dollars worth of camphor.

Another, though less known, camphor yielding tree, is the *Dryobalanops camphora* of Sumatra, which produces what is known as Malay camphor. The crystals of this tree are found in clusters under the bark, in knots, and occupying longitudinal fissures in the heart of the tree. In order to obtain it, the trees are destroyed by the natives who are said to often procure about ten pounds from a mature tree.

Formosa or Chinese Camphor.

Formosa camphor has hitherto been shipped to Europe and America through Chinese ports. For this reason it is generally known as Chinese camphor. It is produced by a crude process of distillation, billets of the wood being boiled in water in large containers covered with straw, luted with clay. These containers or retorts generally hold about 400 lbs. of wood, which is renewed every day for about 10 days. At the end of this time the crystals of camphor are found adhering to the straw upon which it has been deposited. It reaches the markets in an impure and moist condition in lead-lined chests each containing about 150 lbs. The moist nature is due to the addition of water which is used to prevent volatilization.

Japanese or Dutch Camphor.

Japanese camphor reaches the market by way of Batavia and is therefore often called Dutch camphor. It is usually of larger grain, is pinkish in colour and of superior quality than the Chinese product and is received dry. It is packed in tubs containing about 125 lbs. and is sometimes also known as tub camphor. Wooden condensers and bamboo tubes are used in the process of production.

Refining.

The process of refining camphor was long kept secret and for a time the city of Venice maintained a monopoly of the art. The method is termed sublimation and its object is to free the crude product from impurities. It bears the same relation to the refining of solids as distillation does to the manufacture of liquids. The process is now well known and it has been carried on successfully in many large cities, although, as has been said, the difficulty in securing the crude material has practically forced American and European refineries from the field. Briefly, the method is conducted as follows:—

The camphor is at first broken into small pieces, and about 3% of slaked lime and 2% of iron filings being added, it is placed in glass flasks imbedded in sand. These are then gently heated to about 190 degrees C., for an hour to expel moisture and then to about 204 degrees C. at which temperature it is maintained for 24 hours. The flasks are now corked and the sand is removed from the upper portion, where the camphor condenses in pure white crystals. If air is permitted to enter the flasks during this process, the camphor becomes opaque in appearance and consequently less attractive. The flasks are finally sprinkled with water and being broken, the camphor is removed from the upper shoulder where it has collected. Each flask produces a circular cake or bell about 12 inches across and some 3 inches thick, weighing about 10 lbs. The object of this process is to retain the temperature just below the degree of volatilization. The lime is used in order to free the camphor from any resin which may be present and the iron in the same way takes up whatever sulphur there may be. Charcoal is frequently also employed to remove any foreign coloring matter.

Resublimation.

In former times the camphor was in Europe subjected to a further operation termed "resublimation." This process was not only useless from a practical point of view, but pernicious to the consumer, as its object was to introduce to the mass about 15 per cent. of interstitial water in order to increase its bulk. The peculiar property of thus absorbing moisture was long made use of and only abandoned with reluctance, as the device well repaid the cost of operation.

Cultivation.

The cultivation of the camphor tree is attracting considerable attention in Ceylon, where it is found to flourish at altitudes from sea level to 5,000 feet and upwards. The old destructive method of obtaining the camphor is now being abandoned as too improvident to repay the expenses of cultivation. The distillation of camphor direct from the wood is, however, still practised, but planters are commencing to experiment in other and less wasteful processes. In this respect the analogy between the causes affecting rubber and camphor industries, already alluded to, has another parallel, for whereas with the best variety of rubber—the Pará—the knowledge of a satisfactory process of obtaining the lac is still in abeyance and depends upon experiment, the same experimental period is being undergone to discover the most economical production of camphor. There seems to be a general tendency to look towards the leaves and new twigs as to the future source of commercial camphor. It is found that the valuable product is distributed throughout the whole system of the tree, and a method of cultivation, depending upon the production of a large quantity of leaves and twigs, is probably the one which will be aimed at.

Estimated Yield.

To effect this it is proposed in Ceylon to plant the trees in rows, about 8 ft. apart and running across the direction of the prevailing winds—about 2 or 3 ft. being allowed to each tree. By a system of rigorous pruning the trees would be kept from becoming tall, thus diminishing the cost of labour, and would be induced by constant clipping, to yield a maximum foliage. Experiments conducted on a small scale have shown that trees planted 12 ft. apart yield nearly 50 lbs. of clippings per tree. As the process may be repeated 4 times a year about 50,000 lbs. of green clipping would be the annual yield per acre. The yield of camphor from fresh leaves is variously estimated at from 1½ to 2% and of the twigs at a little more than 2%. Taking the production of the two sources combined at only 1½% the annual crop of camphor per acre would be about 750 lbs. This under the system suggested of closely planted hedges should with care be increased to about 1,000 lbs. per acre.

The present price of camphor is about 65 cents. per pound but basing our estimate at 50 cents and the annual yield of 750 lbs. the gross return per acre would be about \$375. It is estimated that the cost of planting, weeding, distillation and fuel would amount to \$75, giving a net return per acre of \$300. As the uses of this article are greatly increasing, and the supply tending to diminish, the profit per acre would probably be greater than the above estimate upon large plantations, as soon as the most weighty economical problems of the industry have been solved. However, taking the moderate price of our estimate, adding one-third more for labour and reducing the anticipated harvest by a like amount a net income of \$150 per acre should be secured. On a small plantation of 6 acres—a venture probably within the reach of almost every one here—an income of nearly 1,000 dollars per annum should be secured in about 4 years.

Cost of Planting.

The present price in Japan of young camphor trees, about a foot and a half high, is \$100 per thousand. Good results, however, may be obtained from seed, which ripens in Japan in October and November. The seed generally does not preserve its vitality unimpaired for a length of time and before planting, it should first be soaked in water for 24 hours or upwards. The best seed will be found to sink to the bottom. In planting the seed well fertilised sandy loam is preferred. Upon this it is sprinkled and covered with sifted earth for about ½-inch. About 2,000 plants may be obtained from 1 lb. of seed. To conserve moisture and protect the young plants from the sun when they first appear, straw should be strewn upon the bed and a few stakes inserted in the ground to prevent it from blowing away. The trees should be transplanted 6 inches apart and when about 12 inches high should be set out permanently. Clipping may be commenced at 8 years. At 5 years old, if not pruned, the trees attain a height of about 20 feet and a spread of about 10 feet.

Acreage Statements.

District.	1897.	1907.	Increase.	Decrease.	Present Substn.	Necessary new Substn.
					RS.	RS.
Wynaad ...	13,092	11,409	—	1,692	300	475
Nilgiris ...	31,584	10,800	—	20,784	400	450
Coorg ...	11,560	13,000	1,440	—	200	541
N. Mysore ...	12,241	10,000	—	2,241	400	416
S. Mysore ...	17,512	6,060	—	11,452	400	252
Kanan Devan ...	4,914	16,053	11,139	—	520	668
Shevaroy ...	2,817	4,500	1,683	—	150	187
Central Travancore ...	6,586	7,563	977	—	350	315
Mundakayam ...	—	5,492	5,492	—	100	228
Cardamom Hills ...	—	—	—	—	50	—
Anamallais ...	—	5,460	5,460	—	100	226
Total ...	100,306	90,328	26,191	36,169	2,970	3,758

The Planters' Chronicle.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I., INCORPORATED.

VOL. II.]

NOVEMBER 1907.

[No. 10.]

THE U. P. A. S. I.

(INCORPORATED.)

Dr. H. H. Mann.

With reference to the vote of thanks to Dr. Mann passed at the last Annual Meeting of the Association that gentleman writes, under date, London, 17th September :—

Will you kindly convey to the members of your Association my very sincere thanks for the resolution passed at the Annual Meeting relative to my services to the tea industry in India. I cannot express how much I feel the kind way in which planters from all parts of India have spoken of the work I have been able to do. I can assure you that the past seven years, during which I have been the servant of the tea industry, have been ones to which I shall always look back with pleasure. The work has been congenial. The planters have, almost invariably, been courteous, kind and appreciative of the little I was able to do for them. When I take up my new appointment at Poona, I shall be only too delighted, in my private capacity, to be of any further service that I possibly can to the tea industry whether in the south or north of India.

With again the expression of my heartfelt appreciation of the resolution your association has been kind enough to put on record with reference to myself. . .

Popularisation of Coffee.

Mr. John C. Sanderson sends copy of a letter he has received from the Secretary of the London Chamber of Commerce on the above matter. There has, he says, been an unavoidable delay, as so many members of the Committee have been away from London for some time past. A meeting was to be held on Monday, October 14th, when the resolutions passed by the United Planters' Association would be fully discussed."

(INCLOSURE.)

The letter from the London Chamber of Commerce, dated 2nd October, 1907, reads as follows :—

THE COFFEE QUESTION.

With reference to our recent correspondence and your letters of the 6th and 9th ultimo, informing me of the view taken by the United Planters' Association of Southern India, I have to report that the draft letters to the Consuls-General for Brazil and Costa Rica were withheld on the request of Mr. Bowron, (Messrs. J. Travers and Sons, Ltd.,) who was leaving for his vacation at the commencement of August, and who intended to make unofficial enquiries abroad upon the matter.

I have now learnt from Mr. Bowron that there may be some little difficulty in securing the adhesion of Brazil to the proposals of the Committee. Before writing the Consuls-General for Brazil and Costa Rica, there-

fore, it has been thought desirable to summon the Committee to consider the present position, and a meeting has been accordingly fixed for Monday, the 14th instant, at 3 p.m., notices for which are being issued to-day.

The Committee will, of course, consider the Resolutions passed by the U. P. A. S. I., whose views will naturally carry great weight with the members.

Writing on the 15th October, 1907, Mr. Sanderson said :—

A meeting of the Coffee Trade Section was held at the London Chamber of Commerce on Monday last, when the resolution passed by your Association stating that the Planters are prepared to fall into line with the suggestions as regards raising a cess, etc, etc, were duly considered. After some discussion when some Members of the Committee expressed doubt as to whether the coffee producing countries of South America would agree to co-operate, it was resolved that the Chamber should address letters to all the large coffee producing countries informing them that your planters are prepared to give financial support and asking them if they will favourably consider the suggestion. The Salvador representative in this country has undertaken to advise his Government to contribute a sum of £1,000 per annum, while Mr. Le Lacheur has consented to do all he can with the Planters of Costa Rica. For your information, I enclose a copy of the letter addressed to the Consuls and also one addressed to Mr. F. Ramos, the General Commissioner of the Government of the State of S. Paulo of Brazil, who has published an interesting book on the Valorization Scheme.

[INCLOSURES]

Letter from Secretary, London Chamber of Commerce,—to Consuls :—

The question of the relatively small sale of coffee in this country has for some time past been engaging the attention of the Coffee Trade Section of this Chamber, representing as it does the largest importers and distributors of the country and a short while back the following resolution was passed and subsequently endorsed by this Council :—

“That in the opinion of this Committee the time has arrived to undertake a systematic propaganda, both theoretical and practical, as to the advantages of coffee as a beverage for the general public, as has been so successfully done in the case of both tea and currants, and that the Governments of the producing countries be approached to give financial assistance for the purpose.”

It is not intended that the propaganda shall be confined to Great Britain, but that it shall include *all the more important markets*, where the present consumption of coffee is comparatively insignificant.

As stated in the resolution, the first and essential step to be taken is to induce the chief producing countries to become interested in the movement, both directly and by bringing the matter before the leading Planters, and I should be much obliged if you would inform me, as a preliminary, whether your Government has any funds which it could properly allocate for such a purpose and whether representations could be made officially to the leading planters in order to induce them to participate. Perhaps you would be good enough to say whether, in any case, you would be prepared to approach your Government on the subject. It has been suggested that the best method of raising money for the purpose would, perhaps, be by a small cess of 1d. to 3d., per cwt., on coffee produced in the various countries according to the selling values in European markets. From enquiries which have been made it has been ascertained that the planters of Southern India are prepared to give the financial support required subject to the condition that other Coffee-producing countries will bear their proportionate share of the cost : and tentative promises of support have already been received from other countries interested.

The Committee feel sure that your Government will recognise the necessity of something being done in the near future, and they trust that the above suggestions will receive favourable consideration.

Letter from Secretary, London Chamber of Commerce to F. Ferreira Ramos, Esq., Commissariat Gouvernement de L'Etat de St Paulo. Antwerp:—

17TH OCTOBER 1907.

The question of the relatively small sale of coffee in this country has for some time past been engaging the attention of the Coffee Trade Section of this Chamber, representing as it does the largest importers and distributors of the country—and a short while back the following resolution was passed, and subsequently endorsed by the Council:—

“That in the opinion of this Committee the time has arrived to undertake a systematic propaganda, both theoretical and practical, as to the advantages of coffee, as has been so successfully done in the case of both tea and currants, and that the Governments of the producing countries be approached to give financial assistance for the purpose.”

It is not intended that the propaganda shall be confined to Great Britain, but that it shall include *all the more important markets* where the present consumption of coffee is comparatively insignificant.

Meetings of the Coffee Trade Sections were held, and finally a committee was formed which undertook to carry out the propaganda on the lines indicated in the resolution. From enquiries which have been made, it has been ascertained that the planters of Southern India are prepared to give the financial support required, subject to the condition that other Coffee-producing countries will bear their proportionate share of the costs: and tentative promises of support have already been received from other countries interested.

At a recent meeting of this special Committee the attention of members was called to the printed copy of your lecture on the “Valorization of Coffee in Brazil” special reference being made to the “*Convenio de Taubate*” between the three Brazilian Coffee-producing States, under one of the clauses of which Agreement the three States undertake to organise and maintain a regular and permanent propaganda in favour of Coffee, in order to increase its consumption.

It is hoped that the Brazilian Government, or the planters themselves, will support, financially and otherwise, the object of the committee, but before approaching the Brazilian Government, my Committee would be glad if, when you are next visiting London, you would favour some of its members with a personal interview, to generally discuss the whole matter, upon which your advice would be much appreciated by the Committee. If, however, you are not likely to be in London for some time the Committee will be glad to exchange ideas with you by letter.

The members of the Coffee Trade Section of the Chamber desire me to inform you that they have read with much pleasure your lecture on the “Valorization of Coffee,” the subject matter of which is of great value to those engaged in the trade.

Indian Legislative Councils.

Mr. W. C. Madge, Secretary, European and Anglo-Indian Defence Association, Calcutta, writes, under date 1st October:—

“I am directed to send you the accompanying extract from the proceedings of a meeting of the Council of this Association, held on the 23rd September, and to request that the said extract may be laid before your Committee, and that the Council may be favoured with an expression of the views of your Committee on the subject of non-official European representation in Indian Legislative Councils.”

(INCLOSURE).

Extract of Proceedings of the 198th Meeting of the Council of the European and Anglo-Indian Defence Association, held at the office of the Association on Monday, 23rd September, 1907.

* * * * *

The question of European Representation in the Indian Legislative Councils, Imperial and Provincial, having come up for discussion, after circulation of the Circular of the Government of India, dated 24th

August, 1907, relating to the Establishment of Imperial and Provincial Advisory Councils, and the enlargement of Imperial and Provincial Legislative Councils, the Council proceeded to consider and discuss the following facts and suggestions.

Previous to the enactment of the Indian Councils Act of 1892 this Association had not favoured any enlargement of Indian Legislatures on the ground that, the non-official European element being very small and unable to affect official decisions in the Legislatures, it would be wiser, while such bodies remained mainly official, that no large European non-official representatives should be held constructively liable in part for their proceedings and enactments. On the passing of the above statute, however, and with the introduction of a larger Indian element and greater freedom in discussion budgets, even when Acts to introduce new taxation were not passed, this Association began to claim a fuller representation for non-official Europeans than the Government had conceded, but without success.

At present, while five distinct classes of persons have the privilege of recommending members for nomination by Government to Provincial Councils, and some classes have two while others have only one, "merchants, manufacturers and tradesmen" are grouped under a single head and can claim only one nomination, while Planters and the whole Mill industry in the mofussil have to take their chance among District Boards and other rural bodies by which they are usually swamped.

In April 1893, the Association pleaded strongly with Government, that as separate members had usually been elected for Commerce and Trades by the courtesy of the Government, and new concessions were being conferred upon Indians, the right to return separate members for Commerce and Trade should be granted to the non-official European Community, and recognised under the new rules then being passed, and that the claims of the Planting Community should also be taken into consideration. It was urged that, if at a period when altogether new concessions were being granted to Indians, similar rights were not conferred on Europeans, an unmerited slight would be thrown upon the most loyal section of the public.

The Government, however, refused to grant the privileges claimed, but declared its intention of nominating separate representatives of Trade and Commerce as circumstances admitted, and it has kept this promise, but the favour comes of grace and not by right as in the case of some Indian bodies.

The proposal now under consideration is to have 54 members of the Imperial Council, of whom 28 members shall be officials, 1 a Ruling Chief, 2 representatives of Calcutta and Bombay Chambers of Commerce, 7 members returned by the seven existing Provinces or Provincial Legislature, 7 representatives of Indian Nobles and Landholders, 2 by Mahomedans as such, and when necessary, 2 Experts selected by the Viceroy. These arrangements omit Trades' Associations altogether, give only 2 representatives to Commerce, and leave Planters and Mill industries nowhere.

The details of Provincial Legislatures have been left for future elaboration but may be expected to follow the principles on which the Imperial Legislature is to be based. These principles represent an attempt to Indianise the Legislatures, almost to the exclusion of the non-official European element, which the Government might have been supposed to be willing to enlist in order to balance the India.

The Council had before them a suggestion that, of the 26 non-officials provided for in the Scheme, eight should be non-official Europeans. The Council are certainly of the opinion that, in view of the great development of industrial enterprise with British capital in India, and the fact, before pressed on the attention of the Government, that the

growing prosperity of the country and the increased wealth and comfort of large classes of people were owing more directly to the commercial and industrial development of the country than to any other cause, it was only right that larger non-official European representation should be given. Before, however, making any representation to Government on the subject it was :—

Resolved that the fact of the case and suggestions now considered by Council be forwarded to the Chambers of Commerce of Bengal, Bombay, Madras, and Rangoon, the Trades' Associations of Calcutta, Bombay, Madras and Rangoon, the Indian Tea Association, the Jute Balers' Association, the Behar Planters' Association, the Duars Planters' Association, the Assam Branch of the Tea Association, the Surnia Valley Tea Association, the Darjeeling Tea Planters' Association, and other such bodies as Council may further determine.

Press Quotations for Coffee.

The following resolution was passed by the Committee of the Shevaroy Planters' Association at a meeting held at Yercaud on October 7th, 1907 :—

“ Resolved that the Hon. Secretary write to the Secretary, U. P. A. S. I., to point out that, as Reuter's Agency seem disinclined to meet our views with regard to quoting East Indian B. Coffee, each District Association be invited to join in paying for quotations from Reuter and if that is not feasible, that Mr. J. C. Sanderson be invited to quote rates. In the opinion of this Association a bi-weekly quotation will be sufficient and the total cost for the same should not exceed Rs.200. Meanwhile we suggest that the Secretary, U. P. A. S. I., write to Reuter's Agency, Madras, and enquire their rates for a bi-weekly quotation for six months or for a year.”

When sending this resolution forward the Hon. Secretary, Shevaroy Planters' Association, wrote :—

It may not affect all Associations or Districts having rates quoted, but those who sell a good portion of their crops locally stand to lose very considerably if they do not hear the London prices for East India Coffee till 3 weeks later. On the Shevaroy's last year, many planters, being in the dark, accepted what they considered very good prices for their coffee considering the huge Brazil crop, only to discover that the Agent and local buyers had offered prices far below the market value of the coffee and had taken advantage of our ignorance of the true price. It is, of course, to the advantage of the large coffee buying firms and local purchasers to try and keep the price of East Indian Coffee from being generally known to the sellers and these, one supposes, are the subscribers who refuse to allow misleading Rio Quotations.

Madras Planters' Labour Law.

A letter, dated the 11th ultimo, from the Acting Chief Secretary to the Government of Madras, Judicial Department, reads as follows :—

I am directed to invite a reference to the correspondence ending with your letters, dated 29th August and 18th September last, on the subject of certain amendments to the Madras Planters' Labour Act of 1908. It is now suggested that the provisions relating to a labourer should be separated from those relating to a Maistry and that Sections 32 and 33 should be recast as follows :—

“ 33 (1). When any Maistry or sub-maistry has been sentenced to imprisonment for an offence punishable under Section 24, application may be made to the Magistrate at any time previous to the expiry of such sentence by or on behalf of the planter or maistry, with whom such maistry or sub-maistry, as the case may be, has entered into a contract, requesting that such maistry or sub-maistry be forthwith made over to the applicant with an order to proceed forthwith to the estate in respect of which he had entered into a contract with the planter or

maistry, as the case may be, and to remain on the estate for the remainder of the time specified in his contract.

"(2). When any labourer has been sentenced to imprisonment for an offence punishable under this Act, application may be made to the Magistrate at any time previous to the expiry of such sentence by or on behalf of the employer of such labourer requesting that such labourer be forthwith made over to the applicant with an order to complete his labour contract.

"(3). On such application being made the Magistrate may, if the maistry or sub-maistry or labourer consents, issue the order applied for and if he issues such order, shall at the same time cancel the remainder of such sentence and direct that the maistry or sub-maistry or labourer be forthwith made over or forwarded to the applicant."

"35 (1). When a complaint has been made against any maistry or sub-maistry that he has committed an offence punishable under this Act, the Magistrate may on application made by the complainant or by or on behalf of the planter, in respect of whose estate the maistry or sub-maistry has entered into a contract direct in his judgment or order of acquittal or discharge, that such maistry or sub-maistry shall present himself on a specified date at the estate in respect of which he has entered into a contract and shall remain there for the time specified in the contract or for such shorter period as the Magistrate may specify. Any maistry or sub-maistry who fails to comply with such an order shall be deemed to have committed an offence punishable under Sections 4 (a) or (b) as the case may be.

"(2). When a complaint has been made against a labourer that he has committed an offence punishable under this Act, the Magistrate may, on application made by his employer or by or on behalf of the planter on whose estate the labourer has contracted to work, direct in his judgment that the labourer shall complete the performance of his contract.

"Provided that no such direction shall be given if more than twelve months have elapsed since the date on which his original labour contract would have determined.

"Any labourer failing to comply with such direction shall be punishable under this Act as if he had failed to perform his original labour contract."

"35 A. Subject to the provisions of Section 35, no conviction or punishment inflicted under this Act shall have the effect of releasing any Maistry or sub-maistry or labourer from his contract or labour contract, as the case may be, from liability to prosecution for further offences punishable under this Act in respect of the same contract or labour contract."

The Government will be glad to be favoured with any remarks which the United Planters' Association have to offer on the above proposal.

Arbuthnot's Estates.

At the request of the Official Assignee, Madras, a number of notices regarding the estates that are for sale in behalf of the insolvent estates of Messrs. Arbuthnot & Co. were distributed among Councillors last month, a special supply being sent to each Secretary of a District Planters' Association.

An advertisement relating to these estates is published elsewhere in the present issue, and to it the attention of all readers is specially drawn. A sale of large estates such as those under reference cannot fail to affect values in the various districts in which portions of the property are situated.

The Book of Proceedings, 1907.

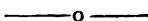
This was issued on the 21st October, though some orders were only executed on the 22nd owing to the inability of the Choolay Post Office authorities to despatch on the earlier date all the books that were then handed in! With the current number of the *Chronicle* a revised acreage statement is sent out, which

is intended for the information, particularly, of buyers of the book, who are requested to paste it in, facing page 63, as it gives fuller details than are contained in the foot-note on that page. The top portion, where it is described as a supplement to the "Chronicle" should be cut off when the slip is transferred to the pages of the Book of Proceedings.

Investigation and Experiments.

In the October number we mentioned that the Scientific Officer to the Indian Tea Association, (Calcutta), had suggested that that Association should start a Journal. Mr. Hutchinson's idea is that the proposed publication should contain suggestions from leading planters as to directions for scientific investigation, comparative information as to local conditions in different districts, and, generally, information that would be of value to the industry. It has been suggested in the *Chronicle* already (Vol. II., No. 8, p. 201,) that something of the same kind would be of use to planters in the South if published through the medium of this paper; and the I. T. A. proposal lends force to this suggestion. The more active the help that planters are willing to give, the greater the usefulness of the *Chronicle* to the whole community will be. controversial correspondence is not invited, but notes of investigations made, of experiments conducted, of experience gained, would be interesting and useful to readers, and would give to the paper itself a touch of originality that could not fail to help it to fulfil its mission.

As an example, reference may be made to the lengthy paper on Coffee Cultivation in Coorg reprinted in the present issue from the *Tropical Agriculturist*. Some of Mr. Gustave Haller's remarks deal with the simple A. B. C. of the industry, but there are statements made and figures given which might be usefully supplemented by means of notes from the personal experience of planters in Coorg and other districts. The reference to the average yield per acre is one point that seems to call for fuller investigation than it has yet received; an extra hundredweight, provided that the standard of quality is kept up, means much to the producer.



The levy of the Ceylon Cardamom Cess, which was imposed under Ordinance No. 4 of 1905 and which was first enforced on October 1st, 1905, ceased on October 1st, according to section 5 of the Ordinance, which limited it to a period of two years. The proceeds of the levy were being applied towards the increasing of the consumption of Ceylon cardamoms in such manner as determined by the Joint Committee of the Planters' Association and the Chamber of Commerce. The Export Duty has been one cent per lb.



A syndicate of Stockton capitalists has purchased a 500-acre tract of very rich land on Roberts Island, one of the numerous fertile river islands west of Stockton, California, and expects soon to commence the cultivation of "coffee."

They are going to put this large tract into "blackeye beans," which are used extensively in the manufacture of the cheaper grades of coffee. The bean takes a nice brown colour, has a good flavor, and cannot be detected from the genuine coffee bean—the imported article—except by an experienced expert; and even such a person would find it difficult to detect the counterfeit in a ground mixture of the real article.

The blackeye bean, owing to the demand for it in the manufacture of coffee, sells readily for 5c. per pound; much cheaper than real coffee can be purchased for. The blackeye bean is not at all injurious, as has been determined by repeated experimenting and chemical tests; but, on the contrary, it makes a very nutritious drink when mixed with real coffee, as is always the case, and the flavor is delicious. In fact, about the only thing against the blackeye bean is, that it is not coffee, and no enthusiastic coffee drinker would knowingly drink any substitute. This is the first attempt to cultivate the blackeye bean in California.—*Scientific American*.

MEETINGS OF DISTRICT ASSOCIATIONS.

Wynaad Planters' Association.

Meeting of 16th October 1907, at Meppadi Club.

PRESENT.—Messrs. C. E. Abbott, H. Atzenwiler, B. M. Behr, E. A. Hughes, D. Mackenzie, D. H. McLeod, B. Malcolm, S. H. Powell, Jr., A. West, H. B. Winterbotham and H. Waddington, Honorary Secretary. Visitors, Messrs. N. C. Whitton and G. H. Welchman.

In the Chair.—Mr. C. E. Abbott.

Proceedings of the last meeting were confirmed.

It was noted that in printed report of Mr. Abbott's note on the Conference at Bangalore, the word *we* appears instead of *two*; the sentence should read "Two Associations pay more than the maximum subscription."

1293—*Plague Passes.*—A list was circulated of the names of writers the Association wish appointed as Local Authorities.

1294—*Post Office.*—Read letter from Superintendent of Post Offices, Calicut, advising that mails from Velleramulla and Meppadi will be closed two hours later than hitherto after the 20th October. Recorded with satisfaction.

1295—*Non-service of Warrants.*—Read letters from Mr. A. West and Magistrate, Vayitri, from which it appears, that in the case quoted at last meeting of the non-service of a warrant in Mysore although the warrant was granted many months back and several reminders have been sent Magistrate, Mysore, the warrant does not appear to have ever been despatched from Vayitri and clerk of the Court is unable to account for the process fees paid.

The Honorary Secretary was requested to address the Collector on the matter.

It was noted that the Nilgiri and Shevaroy's Associations are also moving in the matter of non-service of warrants, and the meeting thought joint action might be taken.

1296—*Sanitation.*—Read letter from Honorary Secretary to Deputy Collector, Wynaad, together with his reply and memorandum by Magistrate, Vayitri. Recorded with satisfaction, and Honorary Secretary was asked to call attention to similar cases as those noted at last meeting.

1297—*Valuation of Timber on Government Waste Lands.*—Read rules to be printed and circulated with proceedings.

1298—*Labour Recruiting and Emigration.*—Read U. P. A. S. I. correspondence, also letter from Mr. W. H. Church, calling attention to case where a policeman was found on an estate reading an offer to coolies enticing them to leave for Ceylon. Members also called attention to notices posted in the Wynaad Post Offices, enticing coolies to leave for the Straits Settlements, although it is not our local jungle coolies that are wanted and the only other persons suitable for plantation work in Wynaad are coolies under advance to planters in the District.

Proposed by Mr. B. Malcolm and seconded by Mr. E. A. Hughes:

That the Association address the Post Master-General, Madras with the object of ascertaining whether it is with his sanction that the Post Office is being used as an advertising medium for Labour Agencies, and strongly protesting against the practice, trusting that it will be discontinued.—*Carried unanimously.*

Proposed by Mr. H. Waddington and seconded by Mr. H. Atzenwiler: That a copy of above resolution be communicated to the Chief Secretary to Government, Madras, and that his attention be called to Mr. Church's case.—*Carried unanimously.*

1299.—*Road No. 38, Chundale-Sholadi.*—Read Correspondence. The Honorary Secretary explained that the District Board District Engineer had

apparently mis-read the first para. of his letter of 14th September. The Association appreciate the trouble taken by the District Engineer to have the metal on this road spread in good time and the work done this year on the very much reduced allotment available, and note with satisfaction that steps are being taken to do the repairs now necessary.

The Association requested their representative on the District Board to do what he can to secure an increased allotment for this road during next season.

1800—*Road No. 39, Sultan's Battery, Cherambadi*—Mr. Atzenwiler called attention to the almost impassable state of this road in places, two weeks ago. The Honorary Secretary was asked to address the District Board Engineer, Malabar, and President of the Nilgiri District Board.

1801—*Labour Law*.—Read U.P.A.S.I. Circular No. 60. Resolved to have the recent correspondence with reference to amendments of Act I of 1903, printed and circulated to all members of the Association. It was hoped that Government would take no steps to definitely amend the Act till those interested have had time to thoroughly consider the effect of proposed amendments.

————:O:————

A Special Meeting of the Association will be held on the 13th November, commencing at 9 a.m., at the Meppadi Club.

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1802—*Papers on the Table*.—U. P. A. S. I. Circs. Nos. 49 to 59.

I. T. A. Circs. Nos. 15 to 18.

I. T. A. Report for 1906.

Letter from Dr. J. S. Winsor, M.D., B. Sc.

Particulars, Arbuthnot's Estates.

Vijiam & Co's Tea Scheme.

A vote of thanks to the chair terminated the proceedings.

(Signed) C. E. ABBOTT, *Chairman*.

(„) H. WADDINGTON, *Hon. Secretary*.

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Summary of Rules for the Valuation of Trees growing on lands which have been applied for on darkast or under the Waste Land Rules in the Wynaad.

The rates to be adopted in valuing trees shall be as follows :—

I. Teak, Blackwood, Vengai and Aini, Rs.7-8-0 per tree below 4½ feet and above one foot in girth.

II. Toon or Red Cedar, Venteak and Mathi, Rs.5 per tree.

III. Kadambai, Jal, Jack and Kalbagai, Rs.2-8-0 per tree.

IV. Biliwara, Cadukai or Alale, Gogi or Komanji, Rs.2-8-0 per tree, with the exception of class I (Teak, Blackwood, Vengai and Aini).

No poles under 18 inches in girth at 5 feet above the ground shall be included in the valuation and no dead or hollow trees are to be included. In the case of any of the trees in Class I if girth is 4½ feet or above they shall be valued individually and charged as follows.—Teak & Blackwood, 8 annas, Vengai, 6 annas, and Aini 4 annas per cubic foot.

Rates quoted above are for trees on land fairly accessible, it rests with the District Forest Officer to decide if the land is in such an inaccessible situation that lower rates are necessary.

————:O:————

Central Travancore Planters' Association.

The Quarterly General Meeting of this Association was held at Arnanal, on Saturday, 19th October, 1907.

PRESENT.—Messrs. H. S. Holder, (Chairman), J. A. Richardson, F. W. LeFeuvre, H.C. Westaway, F. Bissett, F.E. Thomas, E.S. Stephens, D. McArthur, W. H. G. Leahy, C. W. Lacy, C. E. G. Gordon and A. H. Mead, (Honorary Secretary).

The Chairman opened the Meeting.

GENTLEMEN,—The Agenda paper before you to-day will, I think, take up all the time we have to devote to it, I will therefore not detain you.

Your Road Committee have a long report to lay before you, and the thanks of the Association are due them for the time and trouble they have expended on the subject.

The condition of the district roads is beyond all comment; suffice it to say that never have the roads been in a more disgraceful state than they have been this year.

Our thanks are due to the Chief Engineer for having interested himself in the matter of these roads being taken over by us, and if the hopes he holds out are fulfilled, I think we have every reason to expect a change for the better.

In regard to the forthcoming Sri Mulam Popular Assembly, owing to the very short notice that was given as to the date on which subjects had to be sent in, your Committee met and appointed Mr. LeFeuvre as delegate for this Association and instructed him in regard to subjects that they deemed it advisable he should touch on at the meeting; this action I trust you will be able to confirm. The U. P. A. S. I. meeting has taken place and was well attended, the proceedings of the meeting as published, were, throughout, full of interest, and there is doubtless much that took place in Committee, which will appear in the book of proceedings.

I will now ask the Honorary Secretary to read the notice calling this meeting.

At the Chairman's suggestion the minutes of last meeting were taken as read and confirmed.

Correspondence.

Submitted letters from Dr. A. M. Jacob, Sub-Assistant Surgeon.

Resolved that the Honorary Secretary do write to the Sub-Assistant Surgeon that the Central Travancore Planters' Association reserve the right of dealing with the monthly subsidy as they may think fit when the Sub-Assistant Surgeon is on leave or is for any other reason absent.

Submitted letters to Dewan and Excise Commissioner *re* arrack shops adjoining estates.

Resolved that the Honorary Secretary again address Government on the subject.

Submitted letters to Chief Secretary to Government subject District Roads, Peermad.

Resolved that the matter is urgent, and Honorary Secretary be instructed to write again on the subject.

Messrs. Davidson & Co., Ltd., Fitter Scheme.

Considered Correspondence relating to above.

Resolved that as certain estates are not willing to join, the offer of Messrs. Davidson & Co., Ltd., cannot be accepted, and that the Honorary Secretary do write and thank Messrs. Davidson & Co., Ltd., for the trouble they have taken.

The Honorary Secretary read the Report of the Road Committee.

REPORT OF DISTRICT ROAD COMMITTEE.

A meeting of the District Road Committee was held at Bonami Bungalow, on Tuesday, 20th August, 1907.

PRESENT.—Messrs. F. E. Thomas, H. C. Westaway, A. H. Mead, (Honorary Secretary), Messrs. F. W. LeFeuvre, F. Bissett, and the Hon'ble V. B. Wilbraham also attended to consider what immediate steps were necessary to make the Cardamom Hills road possible for traffic.

Messrs. F. E. Thomas, F. W. LeFeuvre, the Hon'ble V. B. Wilbraham and A. H. Mead agreed to repair road temporarily as far as Stagbrook gap.

On September, the 16th, Messrs J. A. Richardson, F. E. Thomas, H. C. Westaway and A. H. Mead met the Acting Chief Engineer, and went over the District roads in his Company.

Mr. Minchin thoroughly sympathised with the deputation, and the recommendations made by him are set forth in the Honorary Secretary's letter, dated 20th September, 1907.

Resolved that the members of the Central Travancore Planters' Association who have temporarily repaired the Cardamom Hill Road be thanked, and that the Honorary Secretary be instructed to write to the Acting Chief Engineer on the subject of the District Roads, Peermad.

Report of Bangalore Delegate.

Mr. J. A. Richardson said :—

GENTLEMEN,—I do not want to take up your time with a long report on the Bangalore Meeting, but had the proceedings of the meeting been ready and circulated my task would have been easier. A great deal took place in Committee, so that even those of you who followed the reports of the meeting in the newspapers lost a lot of interesting information, a good deal of which in my opinion might with advantage have passed through in open meeting.

I will only refer to the resolutions passed which directly interest us, and taking them in order the first we come to is with reference to Dr. H. H. Mann's severing his connection with the Indian Tea Association and reads as follows :—

"That this Association wishes to cordially thank Dr. H. H. Mann for all the scientific work that he has carried out to the immense benefit of the Tea Industry, and especially for the courteous attention that he has always given to matters referred to him by individual planters in South India."

This, I am sure, gentlemen, will meet with your unanimous approval. Through Dr. Mann's resignation the tea industry suffers a great loss and will find it very hard to fill his place.

British Import Duty on Tea.

The following resolution was passed on this subject :

"That this Association regrets that the Home Government have made no further reduction in the Tea Duty this year, and earnestly hopes that the other penny of the war tax at least will be removed in the next Budget."

In speaking to this resolution, Mr Pinches spoke of the good work done by the Anti-Tea-Duty League in their efforts to get the Duty reduced. The league is starting another campaign and is greatly in need of funds. As you may have noticed, the Secretary of the Anti-Tea-Duty League has made special appeals in both the Madras and Ceylon papers for subscriptions. Funds are being raised by voluntary subscriptions and £4,000 is required. He suggests that Companies and others interested in the sale of tea should pay £20 per million pounds of tea and asks the small amount of Rs.5 from every planter, and they in turn should bring the matter before their Companies and proprietors. I think it is the duty of every planter to support it, and I trust every member of this Association who has not already done so will subscribe towards it.

Ceylon Import Duty on Tea.

The following resolution was passed :

"That this Association continue the agitation for the removal of the Ceylon Import Duty on Tea on the lines indicated by the Indian Tea Association in their letter to the Secretary to Government of India, Department of Commerce and Industry, dated 28th June, 1906."

In bringing forward this resolution I drew the meeting's attention to the Weekly Tea Circular of 17th July, issued by Mr. Francis Street, a leading merchant and Tea expert in Colombo, in which he stated that "Bombay still continues to take the rubbishy teas and Factory sweepings, which should be

burnt in the interests of the trade." This may probably induce the Government of India to take the matter up more strongly, as it is clear proof admitted by a Colombo merchant that India has been and still is the dumping ground for all sorts of sweepings and rubbish, which is not fit for consumption. Under planting notes in the *Madras Mail* on the 28th of last month, it is stated, quoting from a Colombo paper, that the opposition in Ceylon against the removal of the duty is not so strong as it was. I hope this may be so, but we must keep hammering away at it if we want it removed, and not let the matter rest.

The scheme for Popularisation of Coffee and Press Quotations for Coffee I will pass over, as they do not affect us. The next resolution which is of interest to us is the *Guaranteed Analysis of Fertilizers*, which reads as follows:—

"That this Association is glad to notice that yearly more firms are giving guaranteed Analysis of Manures, and again urges Planters to give support to those firms doing so."

In this connection I explained that Cochin was our nearest port and most convenient market for purchasing manures, and asked Dr. Lehmann if he could tell me if any Cochin firm was prepared to guarantee Analysis. He said he thought Messrs. Hillinghurst & Co. were prepared to do so.

Scientific Officer Scheme.

This subject led to a good deal of discussion and a series of resolutions being passed, which you have all doubtless seen in the *Planters' Chronicle*. This Association did not promise any support to this scheme, as we have an alternative scheme of our own, but the necessary qualifications of such an officer brought up a good deal of discussion. It was thought he must have knowledge of Agricultural Chemistry, Mycology, Botany and Entomology. I see from the Madras Government's reply to the U. P. A., they too are at a loss as to what qualifications are required. This matter interests us as we are about to bring it up at the coming Sri Mulam, and I think myself what is wanted is a man thoroughly up in Agricultural Chemistry, who would be prepared to take up the other subjects in connection with his work. With a view to this I think it advisable to secure a young man who has just passed out of some Agricultural College, as during his course of training as an Agricultural Chemist he will have been in touch more or less with most of the other subjects, whereas an older man will probably have made a speciality, and worked on one particular subject and lost touch with the others.

The next item which interests us is the resolution on *Indian Tea for India* as follows:—

"That this Association recommends that the scheme set forth in Messrs. Vijiam and Co's letter which has now been given publicity be circulated to the District Associations."

The scheme has been tried before by Messrs. Yule and Co., and for a time met with a considerable amount of success. I think you will agree with me, however, that if we can get a good native firm to take up the business they will make much more of it. Messrs. Vijiam and Co. are a firm of good standing in Madras, and in their letter set forth several schemes for our approval, which will no doubt come up for discussion later on, when I trust you will give the matter your support.

Indian Tea Cess.

A resolution on this was passed as follows:—

"That this Association wishes strongly to support the view that the Indian Tea Cess levied under provisions of Act IX. of 1902 should be continued for another 5 years from the 31st of March, 1908 at which date the period for which it was levied will come to an end."

Weights and Measures.

Last year's resolution was re-affirmed, but I am afraid we are not much further forward with this matter than we were some two years ago.

Labour Recruiting and Emigration.

There was a good deal of discussion on this matter, principally in Committee. The feeling seemed general in all districts that the continued emigration of coolies to foreign countries was becoming very serious for the planting enter-

prise of Southern India. It was decided that the Hon'ble Planting Member and Mr. Martin should interview informally members of the Madras Government on the subject, and the following resolution was passed:

"That this Association requests the Honble Mr. Hodgson and Mr. Aylmer Martin to interview informally members of the Madras Government, and give them the information in our possession about Labour Recruiting and Emigration, and gives full power to these two gentlemen to adopt such measures for the protection of the interests of planters in South India as seem to them advisable, and that they report to this Association."

Commission on Money Orders.

The following resolution was passed on this subject:—

"That this Association again address the Director-General of the Post Office in India, and ask him to reduce the Commission on Money Orders to 2 annas for Rs.25, 8 annas for Rs.1,000, and four annas for each subsequent Rs.100. But that the Secretary shall first ascertain what steps the Madras Trades Association, which has promised its support, intends to take; and act in concert with it."

Theni Bridge.

This subject was brought up by the Kanan Devan Association Delegate, and I had much pleasure in seconding the resolution. I think, considering the treatment we have received from Government, the resolution was very mildly put, and I hope Government will see their way to carry out the promise made over two years ago by Mr. Bedford and Mr. McFarland, Collector and Assistant Collector of Madura District, who attended a Committee Meeting of the Kanan Devan Association. Mr. Bedford then assured us that the Theni Bridge would be built and that funds were available. The Periakolam Bridge he said he could not promise, as the most suitable crossing was where the long-spoken-of railway bridge would come. The Periakolam river is not so dangerous, however, and the bridge not so urgently wanted, but we then congratulated ourselves that the Theni Bridge would disappear from our Agenda papers. We were wrong, however, and like the railway it is still untouched. The total cost of the bridge would not be more than Rs.20,000 at the outside, and we can only hope that the following resolution will have some effect and persuade the Madras Government of the urgent necessity of building this bridge, which is a very serious danger to life and property during the North-East Monsoon, to say nothing of the inconvenience caused by the delay to Mails and travellers when it is in flood.

The resolution reads as follows:—

"That this Association feels very disappointed with the reply of Government made about the bridging of the Theni River, and that considering the uncertainty which the Government themselves point out of the railway through Cumbum Valley ever being constructed, and the fact that apart from the railway this bridge is an immediate and urgent necessity, Government be asked to reconsider their decision."

Resolution 24, *Feeder Roads on the Shevaroyis*, I will pass over, as it does not interest us.

Madras Planters' Labour Bill.

This matter took up a great deal of time and was spoken on at considerable length by Mr. Brock, of the Nilgiris, and Mr. Abbott, of Wynaad. These two Associations, you will remember, applied for the Act and had it introduced in their districts. Amendments were asked for, and the Government reply to these only came a day or so before the U. P. A. Meeting, too late for District Associations to discuss them. Last year the Wynaad Association petitioned to have the act withdrawn, but they have now agreed in conjunction with the Nilgiri Association to go on with it and press Government to amend it and make it more suitable. It would take too long to go into all the details of the discussion on this matter so I will simply read you the 3 resolutions passed and memo. of opinions:

- "1. That a letter be addressed to the Government of Madras, embodying the opinions of this Association in regard to the proposed amendments to Act I. of 1903, and giving its reasons for the same."
- "2. That this Association firmly refuse to accept the so-called reciprocal obligation which Government have lately added to the proposed amendment to Section 29."
- "3. That this Association requests the Government of Madras to make every endeavour to complete the amendment of Act I. of 1903, before the end of the current year."—*Carried unanimously.*

(MEMO. OF OPINIONS).

- "Section 4. This Association is strongly of opinion as already stated in previous correspondence on the subject that it is very advisable in the interests of the coolies that he should not be compelled to go before an attesting officer unless he elects to do so; but is willing to accept the amendment to Section 4 proposed by Government. It regrets, however, that this is not being effected in the simple manner implied by the Government of Madras in their Order No. 558, Judicial, dated 28th March, 1906."
- "In this connection the Association considers that Government should appoint officials of a much lower grade than at present as attesting officers in the Mysore State, where only Amildars, Taluq Sheristadars, Sub-Registrars and Hobli Sheikdars (which officials are usually only to be found at Taluq Headquarters), have been appointed to attest contracts, and requests that in addition Village Patails and Shanbhogs should also be appointed as attesting officers."
- "Section 29. With reference to the resolution that this Association has passed in connection with Section 29, this Association considers that the so-called reciprocal obligation is not in the slightest degree reciprocal and that it would practically suggest dishonesty to the maistry and the coolie, who could at any time by collusion come down upon the Planter for repayment of money already paid, and for these reasons cannot possibly adopt the Government's addition to the simple amendment proposed last year. The latter in turn although accepted by this Association was not what the Wynaad and Nilgiri District Associations asked for but was offered by Government instead of what they wanted."
- "In this case this Association although wishing for the amendment as offered by Government last year can under no consideration accept this so-called reciprocal obligation, and if Government insists upon this point infinitely prefers to refuse the amendment altogether."
- "Section 35. This Association follows the view of Government that some amendment to Section 35 is desirable. Of the two alternative amendments proposed by Government the first only can be entertained, as this Association is of the opinion that it is essential maistries and sub-maistries should continue to find a place under this section. In such cases as would come under this section when amended the maistry or sub-maistry would probably have already satisfactorily accounted for his advance. But the fact of a maistry having failed to present himself on the estate or failed to remain there would not at all necessarily imply that he had no labourers to look after. It is possible and even probable that a few of his coolies might be there while the majority had failed to come in, in which case he would when ordered to return to the estate be in a position to get such of his labourers as had defaulted back to work."

Warrants and Summons.

Mr. Brock, of the Nilgiris, proposed the following resolution, which may help to do away with the continual return of warrants with the old excuse that the person is not to be found:

- "That Government be asked to instruct officers who issue warrants and summons that the number of the Police Constable entrusted with their service be recorded on them."

Finance.

It was under this heading that the resolution passed at our last meeting re an acreage assessment for the U. P. A. Subscription came up, and I am sorry to say I was unable to carry the matter through successfully. This was not from any direct opposition to the scheme from other delegates, but principally owing to the fact that since the matter was brought up at Bangalore last year by our delegate and referred to the District Associations for discussion nothing further was done. It was therefore impossible for the different Associations to know what their subscription under an acreage basis would be and not wanting to be let in for more than they could afford they limited their delegates this year to a certain amount. In accordance with our request when sending up our resolution to the U. P. A. acreage statistics were asked for from all the Associations. These figures I must say came as rather a surprise to me. Taking the figures of 10 years ago when the present method of subscription was introduced we find the acreage under cultivation was then returned as 100,806 acres and allowing that a certain amount of coffee cultivation had gone out I thought that the large extensions in Tea and Rubber during the last few years would more than make up for it, and that a 6 pie per acre cess would meet the case. The return sent in this year, however, only show an acreage of 90,828 acres, a falling off of 10,000 acres. This is mostly due to Coffee land being abandoned and in the case of the Nilgiris a fairly large acreage of both Tea and Coffee being in the hands of natives but also I am sorry to say to planters in several districts withdraw being short sighted enough to support from their district Associations. On the existing figures, taking the average expenditure of the U. P. A. at Rs.3,700, an acreage assessment of 8 pies per acre would be more than sufficient to cover it. The following table shows the acreage returned in 1897, as compared with 1907. Increase and Decrease in the various districts, the subscriptions now being paid and what they would be under the acreage system.

*Table Showing Acreage Statement and Necessary Assessment
on an Acreage Basis.*

DISTRICT.	Acreage returned in 1897.	Acreage returned in 1907.	Increase.	Decrease	Present substn.	Under acreage system.
					RS.	RS.
Wynaad ..	13,092	11,400	—	1,692	300	475
Nilgiris ..	31,584	10,800	—	20,784	400	450
Coorg ..	11,560	18,000	1,440	—	200	541
N. Mysore ..	12,241	10,000	—	2,241	400	416
S. Mysore ..	17,512	6,060	—	11,452	400	252
Kanan Devan ..	4,914	16,058	11,139	—	520	668
Shevaroyas ..	2,817	4,500	1,683	—	150	187
Central Travancore ..	6,586	7,568	977	—	350	315
Mundakayam ..	—	5,492	5,492	—	100	228
Cardamom Hills ..	—	—	—	—	50	—
Anaimallais ..	—	5,460	5,460	—	100	226
Total ..	100,806	90,828	26,191	36,169	2,970	3,758

From these figures you will see, gentlemen, that with the exception of two districts the difference between what they now pay and what they would have to pay under the new system is not very great, and I think you will find that if we keep the matter before them they will all fall into line next year. I brought your resolution forward in open meeting, and then we went into Committee, when I spoke further on the matter and put the above figures before the meeting. The Hon'ble Mr. Hodgson, in replying, spoke in favour

of the scheme and strongly recommended it, but owing to the reasons I have already stated it was obvious it could not go through without further reference to the District Associations. I therefore withdrew your resolution and proposed the following in its place as a temporary measure :

" Considering the straitened circumstances we find ourselves in owing to the loss of our Reserve Fund through the failure of Messrs. Arbuthnot and Co., we recommend that a very special appeal be made by District Associations to every Planter in South India and Home Proprietors, urging them to support their District Associations and thus help to swell the funds of the U. P. A. S. I. and increase its influence."

I trust, gentlemen, you will approve of my action in this matter. What we have now got to do is to keep the subject before the other Associations and not let it drop as it seems to have done last year, and I think it will go through next year. It must be quite clear to everyone that something must be done, as it is only with the help of a balance from last year of Rs.788-2-0 that the U. P. A. is able to carry on for the present year, as, according to the estimate, the expenditure will be Rs.3,540 with an actual income of Rs.3,670, leaving a balance of only Rs. 130. District Associations are asked to send in half of the annual subscription as soon as possible. The last Resolution, No. 28, refers to the Banking of the U. P. A. Funds, which it has been decided to place with the Bank of Madras being the most suitable as they have a Branch in Bangalore.

I think, gentlemen, this covers all the points in which we were directly interested.

Proposed from the Chair :

That a hearty vote of thanks be accorded to Mr. J. A. Richardson for so ably representing the Association at Bangalore, and for his instructive and ample report.—*Carried unanimously.*

Resolved.—That the Honorary Secretary do write to Secretary, U. P. A. S. I. enclosing Mr. Richardson's figures of district acreages and requesting that these may be embodied in the Report.

Resolved.—That the Central Travancore Planters' Association do pay half their annual subscription to the U. P. A. S. I. at once.

Resolution by Mr. H. D. Deane was withdrawn.

Resolution by Mrs. Munro (by proxy) withdrawn, as the matter has already the attention of the Association.

Proposed by Mr. F. LeFeuvre, seconded by Mr. F. Bissett : "That the Dewan be asked whether there would be any objection to correspondence between the Managers of Estate "Day and Night" Schools in Peermaad, and the Assistant Inspector of Schools, Kottayam, being carried on in English instead of Malayalam as at present.—*Carried nem. con.*

Proposed by Mr. A. H. Mead, seconded by Mr. F. W. LeFeuvre : That it be ascertained what financial support would be forthcoming in the District and in Mundakayam District towards the support of qualified British Medical Officer.—*Carried.*

Resolved.—That the following Committee go into the question of a European Doctor.—Messrs. D. McArthur, F. E. Thomas and J. A. Richardson.

Proposed from the Chair.

That Government be asked to contribute a grant towards the re-construction of the Manaas Creek Bridge.—*Carried unanimously.*

Mr. W. H. G. Leahy proposed a vote of thanks to the Chair, and the proceedings terminated.

(Signed) A. H. MEAD,

Honorary Secretary.

Coorg Planters' Association.

Proceedings of a Quarterly General Meeting held at the Freemasons Lodge, Mercara, on Thursday, October 17th 1907 at 2 P.M.

PRESENT.—Messrs. W. M. Ball, W. A. F. Bracken, Talbot, Cox, L. King-Church, H. F. Davy, J. A. Graham, H. M. Mann, James T. Morgan, J. P. Green-Price, A. J. Wright, W. R. Wright, L. T. Harris, Esqr., I.C.S., Commissioner of Coorg, Honorary Member, and A. Lambert, Honorary Secretary.

Mr. Ball was voted to the chair. The Chairman, in opening the meeting, regretted the unavoidable absence of Mr. Murray-Aynsley, the President, C. P. A., and the Honorary Secretary then proceeded to read over the minutes of the last meeting, which were confirmed.

The following report of the delegates to the late U. P. A. S. I. Meeting was also read by the Honorary Secretary.

GENTLEMEN,

Before proceeding to lay before you the Report of your delegates to the late U. P. A. Meeting, Mr. Murray-Aynsley and myself, I should like to express my regret that this has been somewhat delayed, owing to my having been indisposed most of the time during my stay in Bangalore, and by press of business since my return to Coorg last month, and more especially do I regret the delay in the publication of this Report, as this year there was one subject of special interest to our members, and in fact, to the whole Province of Coorg on the Agenda paper, *viz* :—Railways and Planting Districts—and though the papers contain a more or less full account of the proceedings of the U. P. A. Meeting, day by day, yet it appears that some disappointment has been caused by the non-appearance of the Report of your delegates, and I would, therefore, suggest that, in future, delegates to the U. P. A. Meeting, in order to prevent disappointment to, and for the early information of our members, be asked to issue a Report of their doings thereat as soon as convenient after the said meeting is closed, as the usual Quarterly Meeting, C.P.A., before the members, at which this Report has always hitherto been laid, does not, in any case, take place until some time after that date. The other questions on the Agenda paper which your delegates were asked to, specially, take note of, were the following :—*Import Duties on Seeds of Economic Products, Finance, Coffee Popularisation, Scientific Officer's Scheme and Weights and Measures*, and I will now proceed to give you some account of the action taken by your delegates in regard to the various questions enumerated above :—

Economic Products.—With reference to this question we were asked to support any proposal which included approaching Government with a view to having the import duties on seeds of economic products reduced. The discussion however, which arose on this point, vetoed the idea, the general impression amongst the delegates being that it was too small a matter to bring to the notice of Government and that, in any case, it was very improbable any reduction would be made, with which we agreed, the present duty on same being only 5%.

Finance.—Under this heading we were instructed to enquire as to whether the Louisiana Exposition refund of Rs.10,000 had been involved in the loss incurred by the failure of Messrs. Arbuthnot & Co., or as to how it had been disposed of. This sum was unfortunately included in the losses we incurred through that calamity.

Coffee Popularisation.—In regard to this matter we gladly seconded the South Mysore Resolution, which ran as follows :—Proposed by Mr. J. G. Hamilton, seconded by Mr. Lambert, "that this Association cordially accepts the offer laid before it by Mr. J. C. Sanderson, and should the support of the different countries named be obtained, is prepared to address Government with a request that, within the limits proposed by Mr. Sanderson, a cess similar to the tea cess be levied on all coffee exported, and the proceeds devoted to the campaign for the popularisation of coffee."

Coffee Adulteration.—In regard to this question a resolution recording a hearty vote of thanks to Mr. J. D. Rees, M. P., was passed for his services on planters' behalf in the matter of coffee adulteration and that this Association trusts he will continue his kind efforts in this direction.

Scientific Officer's Scheme.—We cordially agreed with the resolution passed *re* this question, which ran as follows:—"That in view of the valuable financial support promised by the various South India Associations who have reported on the matter, and the urgent need of a Scientific Officer to advise and help the various branches of the Planting Industry in South India, the U. P. A. S. I. do approach the various Governments for financial assistance to enable the project to be carried through at an early date," and, moreover, we felt it especially incumbent upon us to support this resolution, as the idea of the employment of a Scientific Officer had been very favourably received in Coorg, generally speaking, and we considered, therefore, that the sooner the U. P. A. were placed in a position to approach Government on the matter the sooner the services of the said officer were likely to be available.

Railways in Planting Districts.—With reference to this important matter and its special and well-known application to the needs of our Province, of which your delegates being well aware, not only listened attentively to the speeches made both in committee and in open meeting, and further discussed the question not only privately, but also in committee with the other delegates, with the result that we came to the conclusion that our most advantageous policy was to support the Arsikere-Mangalore project, and we are of opinion that we were justified in our action by the circumstances of the case as set forth at the meeting, some of the details of which, however, have not, most unfortunately, we consider, appeared, as yet, in print, and though some of our members may feel somewhat disappointed at the outcome of this year's U. P. A. Railway policy, yet we feel sure that they, as a body, will acquiesce in, and confirm the course their delegates took in their behalf, in not only supporting, but seconding the resolution brought forward by Mr. W. L. Crawford, the cogency of which speaks for itself and which ran as follows:—Proposed by Mr. W. L. Crawford, (S. Mysore), seconded by Mr. Murray-Aynsley (Coorg)—"That in view of the material increase in the prosperity of the Province of Mysore and South Canara and the great development of commerce, and of the mineral resources of Mysore and the fact that the haulage of these minerals would put an entirely new and favourable complexion on the dividend yielding capacity of the proposed Arsikere-Mangalore extension, forming as it would do the most direct route to the coast, this Association considers that it is an opportune time to bring to the notice of the Government of India and the Government of Mysore the necessity of the early construction of this most important line." (*Carried unanimously*).

Moreover as there is, I am given to understand, an impression abroad that your delegates did not do justice to or sufficiently urge the claims of the Mysore-Coorg-Tellicherry line, I should like to point out that we received no definite instructions as to the course we were to pursue in regard to this Railway question, beyond the fact that we were to bring to the notice of the delegates that we in Coorg considered the time had now arrived for some steps being taken to try and have this very important question of Railways in Planting Districts laid before Parliament, and we were also asked to keep our project to the front as much as circumstances would permit of, and in view of these instructions the following remarks were made by Mr. Lambert in open meeting, and notwithstanding the obvious fact that so far as this year's U. P. A. Meeting was concerned those interested in the Arsikere-Mangalore line had set up such a very strong claim to its support, that, in consequence, the question of Railways in Planting Districts was practically concluded.

MR. LAMBERT'S REMARKS.

With reference to this question of Railways in Planting Districts, with your permission, Mr. Chairman, I should like to inform the Meeting assembled here to-day in a few though, I fear, crude words as to what is the general

opinion in Coorg in regard to this important matters, as though, after the very interesting and pertinent remarks which have fallen from gentlemen on the subject of the Arsikere-Mangalore line, we, the Representatives of Coorg have no hesitation in supporting the Mysore planters in their efforts to obtain this Railway, more especially taking into consideration the gallant manner in which they supported our scheme last year at the Annual Meeting of this Association, yet we do not wish it, for a moment, to be understood that we have, in any way, given up hope of a line eventually, and moreover as no distant date, being constructed to connect our Province with the S. M. Railway on the one side, and the Western Coast on the other, and more particularly with this latter point from a business aspect. Indeed, it is our earnest intention to lose no opportunity to push our interests in this connection, or to leave unturned no stone in our efforts to obtain this great desideratum, but to continue the Railway policy we have been endeavouring to carry out for many years past and in the interests of which we have interviewed and memorialized two Governor-Generals of India and many Honorable Residents of Mysore and Coorg, and though without complete success, so far, yet our efforts in this direction have invariably met with courtesy, sympathy, and encouragement to persevere in the manful struggle, if I may be permitted to call it so, commenced so many years ago. But, gentlemen, we do not wish to appear entirely selfish in this matter of Railways, on the contrary, we are strongly of opinion that this question of Railway communication in Planting Districts in general, in Southern India has not met with the attention it really merits either at the hands of Government itself, the Railway authorities themselves, or other leading Directors of such schemes, and though we do not desire to altogether advance this opinion in the light of a grievance, yet we consider that this, to us Planters, very important question has been passed over, and practically lost sight of in the midst of the pressure, and urgency of the organisation and maturing of the many other large and perhaps more important, from a public point of view, Railway requirements which are, doubtless, constantly engaging the attention of the authorities, but this omission on the part of those who control Railway interests in this country, we consider by no means obliterates the fact of the crying need which, undoubtedly exists for freer communication with markets, and with the outer world in general throughout the Planting Districts of Southern India. More especially I may add, too, taking into consideration the large amount of capital which has been for many years past, and is being now invested in S. India both by British and Indian Planters, do we think that our case deserves to meet with more careful deliberation from those in power than it has hitherto apparently done. But Gentlemen, I will not detain you longer by enlarging upon this subject, so I will therefore close these few remarks by stating that we consider the time has now arrived for the Planters of Southern India to take steps to have this very important question brought before the House of Commons with a view not only of bringing more prominently to notice the indifference of our position, generally speaking, in regard to this matter of railway communication, but also with the object of trying to attract the attention to and enlist the sympathy and support of the Secretary of State for India in favour of this very important affair, as being one, moreover, which doubtless very seriously affects the interests, and well-being of a large number of British and Indian subjects, living in this part of the Indian Empire, whose moneys are not only invested in, but whose very livelihood in many cases entirely depends upon the product growing industry which, through their efforts, they have established in S. India; and finally we are suggesting this course with the hope that through this influence more attention may be given to this side of the railway question as regards India, and that Railways in Planting Districts may, in the near future, take a more prominent position in the programme of lines to be constructed at an early date, comprised in the Railway scheme of the Indian Empire, than they apparently do at present.

I may add that, though my remarks were received with approbation, yet no further discussion on railway matters ensued. Your delegates wish to record

the fact that they consider the non-publication of the whole of the speeches and discussions on this important question a most unfortunate arrangement in view of the publicity such a course would have given thereto.

Weights and Measures—No fresh information on this subject was forthcoming and it was decided to re-affirm last year's resolution, which ran as follows :—

"In view of the support that was being received in this matter from the Chamber of Commerce and other bodies, the resolution passed last year was re-affirmed," that resolution being as follows :—"That this Association desires to bring before the Government of India the information now before the Meeting and requests that something be done to level up the weights and measures. The existing variations in the weights and measures cause the greatest trouble, inconvenience and loss of time to planters and their coolies."

We were favoured with the usual interesting, and instructive speech on agricultural matters by Dr. Lehmann. The subject selected this year being "Pruning of Coffee," and on the whole the late meeting was a successful one.

(Sd.) C. E. MURRAY-AYNSLEY.

Mercara, 17th October, 1907.

(„) A. LAMBERT.

The Chairman, in reviewing the Report, spoke to the effect that, in his opinion, the action taken by the delegates at the late U. P. A. meeting, in regard to the Railway question was somewhat disappointing, and that, so far as he could see, they had not urged the claims of the Mysore-Coorg-Tellicherry Line sufficiently, but after some discussion and further explanation by the Honorary Secretary which threw fresh light on the circumstances of the case, and clearly shewed the position in which the delegates had found themselves placed, the following resolution was passed, "proposed by Mr. Ball, seconded by Mr. Mann, that while endorsing the action of our delegates in supporting the Arsikere-Mangalore Railway scheme, this Association desires to record the fact that it does not forego in any way its claims to be connected with the Railway system of India" and at the same time a hearty vote of thanks to the delegates, Messrs. Murray-Aynsley and A. Lambert, for their exertions on behalf of our Association at the late meeting, U. P. A. S. I., was passed unanimously—proposed by Mr. Ball, seconded by Mr. Bracken.

Amended Rules, J. P. A.—The Honorary Secretary read these through, and they were generally approved of.

U. P. A. Affairs. Popularisation of Coffee.—The Honorary Secretary read letter from Mr. Sanderson, under date 13th ultimo, in which that gentleman notes with pleasure that the Indian planters are prepared to join in conjunction with other countries in any propaganda which may be inaugurated for the popularisation of coffee, and he, also, states that a meeting of the Committee, London Chamber of Commerce, will be held at an early date, when the matter will be fully discussed.

Scientific Officer Scheme.—Read letter from Mr. Aylmer Martin, regarding this question, giving important and favourable information, concerning the same, though of a confidential nature, and therefore not for publication.

Press Quotations for Coffee.—Read correspondence re this matter, it was decided to inform the Secretary, U. P. A., that our Association were willing to subscribe towards the funds necessary for the payment, for the publication of East India B. Coffee quotations in the *Madras Mail* and *Madras Times*, provided the terms therefore were not excessive, and so practically prohibitive.

General—Gonicopal-Polli Betta Road.—The Honorary Secretary informed the meeting that Rs.1,000 had been sanctioned by the District Board for repairs and general up-keep of same up to 31st March next, and that Rs.3,000 had been allotted for the same purpose during season, 1908-09 ending March 31, 09.

Encashment of Supply Bills at Sub-Treasuries, including that at Virajpett :—
This question is under consideration by Government.

Improvement of Communications.—The Honorary Secretary made a few remarks on this subject, touching chiefly on the advisability of trying to secure the establishment of either a Motor or Road Rail service on the road between Mysore and Coorg, and stated that he hoped to be in a position shortly to issue a circular giving statistics as to gradients of proposed route, approximate amount of traffic thereon, and other useful information, concerning this projected service, to some of the leading firms interested in such matters with a view to not only advertising our needs in this direction, but also endeavouring to attract attention to the probabilities and chances of success and profit the Mysore-Sidapur-Mercara route would hold out to promoters of Motor service projects.

The following correspondence—letters from Messrs. Shaw and R. D. Tipping, *re* roads, encashment of supply bills, delay in delivery of Tappal, &c.,—were laid on the table.

Sidapur Post Office and Mr. Ball's suggestion concerning the same. The Honorary Secretary requested that gentleman to write to him on the subject with a view to his approaching the authorities in the name of the Association, and endeavouring to obtain their sanction to the suggested improvements at that office. The delay in the delivery of Tappal complained of, will, I understand, be rectified shortly.

A vote of thanks to the chair terminated the meeting.

The following papers were laid on the table :—

Bound Vol. I. of the *Planters' Chronicle*, September 1906 and January 1907, which was passed round for the inspection of members.

Prospectus of the Renard Road and Rail Transport Corporation, Ltd.

Letter from Messrs. Vijiam and Co., *re* their scheme for advertising Tea, Coffee, &c.

A. LAMBERT,

Honorary Secretary, C. P. A.

Mercara, December 17, 1907.

In a Porto Rico Experiment Station report, Mr. J. W. Van Ikenhoff briefly describes a fungus disease that attacks Coffee berries, the fungus apparently passing through the parchment and causing warty excrescences to appear on the berries. Whether under shade or not Coffee was found to suffer from this, and the cause is said to be probably *Stilbum flavidum*. Trees sprayed three times with Bordeaux mixture at intervals of two weeks after the falling of the blossom showed no disease during the succeeding season.

An experiment has been made in Porto Rico with a view of determining how long wet coffee can be kept without damage to quality and if the sprouting process influences the flavour. On December 30th, 1905, a quantity of fermented and recently washed coffee in the parchment was put in a heap on a cement floor in a basement resembling a malt cellar. The leaf was turned daily. During the sprouting process and before turning, the upper layer, having become dry, was sprayed with water of ordinary temperature. As soon as sprouts of the length of the berry had developed these grains were taken out and dried. By January 28th, 1906, the first grains began to sprout, and a month later all the grains had sprouted. The bulk of the coffee was then dried in the ordinary way and hulled. This coffee was submitted to different consumers, roasters, and dealers in the United States, and was generally pronounced to be of good quality and flavour. By some the flavour was said to have been improved by the sprouting process.

The August deliveries of Coffee in the United States were 546,884 bags, against 602,079 bags for the same month in 1906. In Europe 962,806 bags, against 861,470 bags, August of last year. Total in United States and Europe, first two months of this season, 3,088,170 bags, against 2,669,201 bags in the same time the previous year, 2,370,824 bags the same time 1905.

THE ANTI-TEA-DUTY LEAGUE.

REPORT FOR 1906-07 (TO 30TH JUNE)

The Year's Work.—In accordance with the intention expressed in the last Report, no active agitation was carried on during the last six months of 1906, and as there was a general expression of opinion that the Chancellor of the Exchequer would complete in his next Budget the reduction of the Duty that he had commenced in 1906, it was considered to be sufficient to confine our work to the smallest possible scale.

Mr. Asquith was requested to receive a deputation from Members of Parliament, Tea Producers, and others interested in the production or consumption of Tea, but he declined, and their views were accordingly set forth in a Memorial which was signed by 71 Members of the House of Commons and the Committee and Council of the League. This was forwarded to the Chancellor of the Exchequer shortly before the Budget and duly acknowledged, but in making his proposals for the year's finance, Mr. Asquith specifically declined to make any provision for the relief of the industry.

The only course then open to the Committee was to organise as strong an opposition as possible amongst the Parliamentary supporters of the League, and an opportunity occurring when the Finance Bill was discussed in Committee, an urgent request was sent around to all Members of the House who had pledged themselves to the League at the last General Election, to vote for an amendment proposed by Sir Seymour King, for the removal of the remaining penny of the War Tax.

This was only partially successful in that the amendment was rejected by a majority of 59; the smallest majority the present Government had met with in any measure of importance.

On the division 63 private Members voted against the amendment in violation of their Election pledges and 68 others abstained from voting.

Of the whole body of 140 "supporters" of *The Anti-Tea-Duty League* (Members of the Government being of course excluded) who received the League's "whip," only 14 kept the pledge in the spirit in which it was given.

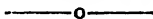
The arbitration proceedings between the League and their Bill Posters were brought to a close, and the amount claimed against the League was reduced from £2,092 4s. 5d. to £1,700, the whole of which has now been paid.

Funds.—During the year no appeal for funds was made and very few subscriptions were received. An appeal has now been sent out which has received the endorsement of the Indian Tea Association (London) and the Ceylon Association in London, and, to date, over £1,000 has been received and promised.

Management.—The Presidency of the League left vacant by the resignation of Sir West Ridgeway, has been filled by the appointment of Sir Roper Lethbridge, who has throughout taken an active interest in the agitation. . . .

Mr. Stuart R. Cope was appointed Secretary in place of the late Mr. Herbert Compton.

The Future.—The future plan of campaign must necessarily largely depend on the funds which may be placed at the disposal of the 'Committee. They are now carefully considering how the money may be best spent in order to accomplish the object for which the League was founded, and details of the programme will shortly be communicated to subscribers.



At a recent meeting of the committee of the Darjeeling Planters' Association, the subject of the Anti-Tea-Duty League was discussed, and it was resolved that the Association should subscribe Rs.100 towards the funds with the hope that more energetic steps should be undertaken by the League than has been the case since the late Mr. Compton ceased to be connected with it. Further that reply postcards should be sent to all members of the Association, asking them to subscribe and send in their subscriptions to the Honorary Secretary. The members of the Committee present agreed to subscribe Rs.5 each, and the opinion was expressed that all gardens should be asked to subscribe, also.

MYSORE REPRESENTATIVE ASSEMBLY.**Addresses of Planting Delegates.**

At the Annual Meeting of the Mysore Representative Assembly on the 19th October, Mr. CHARLES DANVERS, delegate on behalf of the North Mysore Planters' Association, read the following address :—

The North Mysore Planters' Association last year congratulated both the State and yourself on your appointment as Dewan, and while its members have noted with pleasure your unceasing activities and wide sympathies, they hope that the strain of strenuous work has only braced you up, and left you as fit as ever to continue your exertions.

Roads.—This subject is likely to remain one for criticism and discussion for some time to come; but we are glad to note that one of our main arteries, the Kadur-Kotigahara road, has had an increased expenditure allowed, and promises to be more worthy of its duties in future. Only a portion of this extra expenditure appears to have been obtained by special grant, some other road contributing the balance; but it is something to have the principal road in the district in good order, as this promises to be. Representations made to the Department about other roads, however, are invariably met with the reply that funds are not available.

Forest Policy.—In this connexion we have to make a further call on your sympathy and activity. No number of Conferences, no amount of discussion, no expressions of sympathy on your part seem to get us any nearer our goal—the reasonably rapid acquisition of plantable land.

We have to thank Government for a perceptible improvement in the direction of rapidity, but there is still room for further improvement. What seems a short time to a Government appears interminable delay to the applicant, especially when in the end the land is not obtainable. Some few applications have been granted, and some practically granted; but on the whole the obtaining of the land is difficult or impossible beyond what seems to us to be reasonable.

The areas reserved by the Forest Department seem to cut us out everywhere; and that not only in the matter of forest, but in that of grazing also. I have been asked by neighbouring villagers to bring to the notice of Government that around the Balalayan Droog, for instance, the grazing has been practically nearly all taken into reserve—the boundary of the new Reserve appears to be just where the real grazing begins, and the areas left unreserved are mostly composed of rock and scrub. They contend that the line of Forest, where existing, might have been followed, and the grass hills left to the cattle. In view of the encroachment of scrub jungle on grazing lands in the Mulnaad generally, which fact Government does not appear to be aware of, the further curtailment of grazing areas by Forest reservations fills the minds of ryots with despairing apprehension.

The situation is becoming strained; and we ask Government to re-consider their forest Policy, as it presses hardly on Planters and Ryots alike.

Coffee is passing through evil times; though crops are as good as ever, prices are low; where 100 acres formerly afforded a living, 150 acres are now needed; the planter turns hopefully to new products, but finds the way barred—he either cannot acquire more land, or goes under while waiting for it.

In this connexion too, Sir, must be considered the ruling to reserve 50 yards on each side of streams. Even in cases where no other objection is made, streams are found to exist—and the applicant finds that when he has cut out the required 100 yards for each, he has narrow strips of land left, costing a fortune in fences and side drains, and affording an inappreciable and inconvenient area for cultivation.

There are several blocks of Forest, especially in the more hilly tracts, which are desired by neighbouring Planters; but to apply for them under the present rule would be useless, for they could only be bordered with cultivation, running

as they do in ravines of no great width; and in those cases where the Forest Department does not intervene, this rule closes the door.

As this subject will come up for consideration in the Representative Assembly, I will not now take up your time by repeating my arguments of last year, or producing others to show that our methods of cultivation are not inimical to the preservation of rainfall; but I most earnestly request you, sir, to reopen this question, and to reconsider this most oppressive ruling, which bears so hardly on the cultivator in search of new aids to existence. Government has recently stated that the rule is a wholesome one, and must stand; but Government has not published its reasons and arguments, and we are not satisfied that it has got the facts correctly.

We do not know if it has thoroughly considered the difference in absorption of rainfall between cultivated and uncultivated lands; has gauged the difference in evaporation through the leaves from a garden as compared to that from a tangled jungle; or has any knowledge beyond that to be derived from brochures by Forest Officers of regions totally dissimilar to ours. We do not admit that the Forest Officer of a District, in which he has to deal with precipitous rocky hills and a scanty rainfall, can lay down rules to suit our different conditions; and while we do not ask Government to throw its rainfall to the winds, or to feed us while others starve, we do ask, most seriously and earnestly, that this subject be re-considered, and that a Commission be appointed to enquire into the question fully and *locally*; visiting all sorts of lands, cultivated, semi-cultivated, and virgin—and studying the problem *de novo*.

This Commission might at the same time study the present policy of Forest Reservations; for we are now at the mercy of the Forest Department on the one hand, and of this ruling on the other—and we are extremely dissatisfied with the net result.

Liquor Shops.—We brought to the notice of Government last year the excessive number of these shops, and prayed that they might be reduced. On representations made, our late Deputy Commissioner closed some; and it is with satisfaction we note that the present Head of the Abkari Department is making enquiries in a sympathetic spirit. Drunkenness and gambling are on the increase, and both lead to crime; and we hope the Department will see its way to reducing the temptations that now exist, not only to drunkenness and gambling, but to the subsequent theft of produce to liquidate such accounts.

But leaving, Sir, the narrow plank of our own interest and comfort, and standing on the broader platform of the people's welfare, we hope this question of the *too easy* procuring of intoxicating drinks will be earnestly considered by Government.

The great majority of the people of this country are not constitutionally fitted to indulge in alcohol—down the ages fathers have handed to sons bodies free from the spirit and uninoculated by use against its effect—and when it does grip them, it grips them tightly and hopelessly. India has a great reputation among the nations for soberness and temperance; these are great heritages—and we of the West who have adopted this land for our home, and its inhabitants for our brethren, we of the West who have seen the evil effects of intemperance on many nations, hope that His Highness' Government will allow no consideration of revenue, no considerations *whatever*, to interfere with the further handing down of these great heritages.

Any measures taken for the preservation of these qualities among the people of this State—who live in *Swadeshi* and enjoy *Swaraj*—will have the surest foundation for success; for they will be, if not too long delayed, "broad-based upon the people's will."

South Mysore Planters' Association.

Mr. J. G. CRAWFORD delivered the following address on behalf of the above Association:—

Sir,—Having been deputed by the South Mysore Planters' Association to attend the Dasara Durbar and the Mysore Representative Assembly, I esteem it both an honour and a pleasure to join in tendering through you most sincere

congratulations on the completion of another year's successful administration of the Mysore State, coupled with every wish for its future welfare and for the continuance to H. II. the Maharajah, yourself and your colleagues of those blessings of health and strength which are so essential for the discharge of the numerous duties and responsibilities that are associated with the Government of the country and the maintenance of the prosperity and contentment of its people.

I had lately the privilege of being selected to bring to your notice the very urgent necessity for railways in the Planting Districts, more particularly the early commencement of the Arsikere-Mangalore line that has already been surveyed at considerable cost twice and the prospects of which now as a paying concern since the establishment in Mysore of manganese, chrome and other industries has been greatly enhanced.

The expectations of this line have recently greatly improved as a sound commercial venture and one likely to add materially to the wealth of the country by giving it its natural outlet on the coast at Mangalore and also increasing the resources of the districts through which it passes, by inducing immigration and the cultivation of the large tracts of waste rice lands in the Malnaad, and by the development of other industries and trades, not to omit the benefit the planting community, Mysorean and European, would derive from the cheapened transit of its produce to the coast and return loads of fertilisers and the hundred and one necessities required by a large industry. I need not dilate on the matter, as it was fully discussed at the last meeting of the U. P. A. S. I., in Bangalore, where cogent reasons were given for the necessity of the line, all of which, I have no doubt, your Government are already in possession of. Before concluding I would venture to say that we shall welcome the commencement of the Nanjangud-Narsipur-Hassan-Arsikere line, with a branch running through to Chickmagalur and Kadur, with the greatest pleasure and gratitude and look forward to its early completion, as I believe His Highness' Government have full powers to raise funds for the construction of the same. This line would render the building of the Arsikere-Mangalore Railway more urgent than ever, inasmuch as a terminus at the coast for the despatch of the produce of the rich districts tapped by both railways and for the ores, mineral products, etc., from the new mines and centres of industry springing up would be of permanent importance to prevent a glut or the hampering of the business of miners, merchants and others in their not having a near and economical means of despatch to the coast.

In conclusion, may I be permitted to earnestly ask for the support and advocacy of Government in the early construction of these much needed railways?

Forest Policy and the 50 yards Rule.

On Tuesday, the 22nd October, Mr. DANVERS spoke as follows:—

Sir,—As already set forth in my address on Saturday, the North Mysore Association requests Government to appoint a Commission to inquire into the bearing of the 50 yards rule and Forest Reservations on Planting interests.

Between these two, we are as it were between two fires, and can do little. We pray Government to inquire whether there is any real necessity for such huge reservations—and also to further inquire into the necessity for the 50 yds. rule, which from the Planter's point of view, and his invariable experience, is unnecessary, and even deleterious to the object Government rightly has in view.

It absolutely cuts us off from acquiring any reasonable block of land, even when there is no objection to granting it on the part of Government—because, as I pointed out on Saturday, it reduces the available land to an inappreciable and highly inconvenient area. Fences and side-drains will cost considerable sums for provision and for upkeep—and then there will be little to protect.

Considering the enormous extent of the reserves, surely sufficient water-courses are protected in them? This alone should allow Government to be easier with waters in unreserved lands. But our great stand is on this point, that cultivating land as we do does not tend to diminish the water supply,

but rather to increase it. Every Planter will tell you that after opening land he finds his water-courses fuller, and the reasons are not far to seek. The chief one is that cultivated soil will absorb much more rainfall than even evergreen forest does—while it will absorb *infinitely* more than the lands that grow deciduous forest, as these latter are nearly all possessed of a very hard surface which sheds water more easily than it absorbs it. As I have informed you, Sir, on other occasions, when we plant such land—say at Balehonnur or in similar regions—we are obliged to make catch drains at the top of our clearings to divert the awful deluges which pour down from the hard land above: whilst in the clearing itself, once it is dug, renovation-pitted, or otherwise cultivated, there is no such running off of water, save from the hard surfaces of roads.

We further maintain that there is far more evaporation of water through the leaves of a dense forest than from a judiciously shaded garden, or a Rubber Estate—while it is a universally accepted fact that checking capillary attraction by breaking the surface of land tends directly to the conservation of soil moisture. And in the dry season, the deciduous forests shed their leaves and the sun pours in to make the ground dry and hard and so prevent it from absorbing water till well on into the monsoon. Rubber is certainly deciduous, but soil cultivation will prevent the ground from becoming like iron—*besides* which, the dropped leaves will shade the surface, while in unreserved deciduous lands *fire* will remove them. No doubt an occasional owner will not cultivate properly, and this will be a hard case for Government; but hard cases make bad law, and it is not just to starve the many because one is a sinner.

We do not know what Government's arguments are for the retention of this rule; and Government has only our word at present that our methods conserve rather than waste moisture—and so we pray that a commission be appointed to take local evidence in the matter, as we are at the present time extremely embarrassed by things as they stand; and it is so plain to us that the rule is wrongly-advised and erroneous in principle.

With the 50 yds. rule and the reservations we can get little land; and we ask Government to reconsider the whole position, and to find us a way of living from one side or the other, or, from both.

Considering the enormous extent of Forest in Mysore, an extent that strikes one with fresh wonder every time it is viewed from any one of the many hill tops of the Western Ghats and the Bababuden Hills; and considering that only an infinitesimal portion of this huge area is suitable for the cultivation of coffee, tea, or rubber, owing to peculiarities of soil or situation: we are really asking a very small thing of Government when we ask it to rescind this ruling, even if the mythical advantages of the 50 yards fetish were real and solid.

If anything I have said, Sir, should allow you to think that the rule may be withdrawn without the medium of a commission of inquiry, we shall be delighted and grateful, for it will save the *time* that seems so small a thing to a Government and so much to the individual; and—he gives twice who gives quickly.

—o—

Grafting is being resorted to on the new Coffee plantings in Porto Rico, and fertilizer experiments are being conducted in both old and new plantings, under the care of the Experiment Station authorities. A large number of the best varieties of Coffee in various countries have been brought together for selection purposes. The idea appears to be, to plant those that bring the highest prices in the markets of the world. Inferior descriptions are to be discarded, while an attempt will be made to distribute the promising varieties as rapidly as possible among the planters. Coffee is said to bloom in Porto Rico at different periods, according to the altitude and locality. The blooming period on the experiment station tract ranges from February to May, the principal blossoming being followed by one or more smaller blossomings. The berries ripen about seven months after the blooming period; harvesting begins in September and lasts until January, about ten pickings being made at intervals during this time.

RUBBER.**Landolphia Rubber.**

Mr. Ivor Etherington, in writing about *Landolphia* Rubber vines in the August issue of the *Agricultural Magazine*, quotes the following :—

Mr. Hatt says:—"The method of collecting the rubber is simple, though tedious. A thin slice of bark, several inches long, is taken off with a knife, and as the white latex oozes out in little globules these are rubbed over the surface of the cut with the finger. In a few seconds the latex has coagulated into a thin film of rubber, which is wound on to a twig. The process is repeated all over the creeper, the first film forming the nucleus of a ball of rubber. The tapping is repeated four or five times during the wet season, fresh bark being removed each time. If the process is carried out carefully and a sufficient quantity of bark left at the end of the tapplings, the creeper is unharmed; and by the end of the dry season a new bark will have formed."

This certainly seems to be a slow and tedious process, and probably is practised only in certain parts. According to Speke and Grant every part of the stem exudes a milky latex when cut, and this dries so quickly as to form a ridge on the wound, which stops its further flow. The natives collect it by making long cuts in the bark, and as the latex flows it is wiped off continually with the fingers and smeared on their arms, shoulders and bodies till a thick layer of rubber is formed. This is peeled off their bodies, and cut into small squares, which are then boiled in water. . . . In some parts the latex is collected in wooden vessels and allowed to inspissate. Christy suggested collecting the rubber stems, crushing them between rollers, and treating the whole mass with carbon bisulphide which dissolves the rubber, but not certain gummy substances which, according to Collins, are found in the latex if the tapping cuts are made too deep. Coagulation by boiling is also practised, and by the use of acid juices of various native plants.

Close and Wide Planting.

In the course of an address to the Kegalle Planters' Association on October 12th, Dr. J. C. Willis said that he proposed to speak about close and wide planting. It was difficult to define close and wide planting. They would have to go by averages. Take an average Ceylon rubber district, which he would define as 300 feet elevation, about the level of Bulatkotupitiya—soil stony, sloping land and rain-fall of 100 inches well distributed he would call 10 by 10 close, 15 by 15 medium, and 20 by 20 wide. The advantages of close planting, to quote Wright, were (1) larger number of trees to an acre, (2) ground better protected, (3) harvesting cheap, (4) cultivation same all over soil, (5) proportion of poor trees not so serious, (6) easier to thin out. There was no doubt as to these advantages up to the fifth year, at any rate the total girth of trees will be greater if closely planted, but the great question was if it would remain so afterwards, and after all one did not so early. They had very few facts to go upon as regards girth of trees planted under different systems. At Henarat-goda they had a plantation 12 by 12, and these trees during the last nine years, that is from 18 to 22 years old, during which they have been twice tapped, have gained from 30 inches average girth to merely 36-6, or only 6½ inches in nine years without being heavily tapped. Six inches in ten years cannot be considered as large girth. They very much wanted to know how fast the trees that were tapped grew. It would seem that after trees had reached 30 inches girth close planting was decidedly bad. . . . So far as he could find, the average rate of increase in girth of seedlings and stumps on good land did not in Ceylon exceed 3 inches a year, so that in any case every 10th year thinning was necessary. With reference to the question of thinning, he said that in these days of company floating nobody would like to reduce the number of trees. If they were going to plant wider apart they must have intercrops. This is a point they had preached about for many years. The denudation of soil, too, interfered with the growth of trees to a great extent. Taking into consideration all factors—growth, liability to disease, &c.,—he would say plant 15 by 15 or so; probably better 18 by 12, and put intercrops.

COFFEE CULTIVATION IN COORG.

Mr. Gustave Haller writes in the *Tropical Agriculturist* :—

An interesting account regarding coffee is found in a book, now obsolete, and written by the Rev. Dr. Moegling and entitled :—*Das Kurgland und die evangelische Mission* (1866). The following is a free translation of it :—

"Coffee was introduced into Coorg about thirty years ago and has had a queer history. A few years before the dethronement of the last Rajah (1884) two Moplas received extensive lands for certain services rendered. They planted the first coffee in Padinalknad. The story goes that they received the seeds from some Mahomedan priest, who brought them from Mecca. The appearance of the new plant on the property of these Moplas excited great curiosity, but these planters appear to have had the intention to retain coffee cultivation entirely for themselves. They sold their cattle, and made the people believe that they did this, because cattle will die if they drink water coming from where coffee is grown. They also gave up rice cultivation, alleging that rice would fail where the land was irrigated from water coming from coffee lands. All this they did to strengthen the belief amongst their neighbours that coffee was a pernicious plant. But in a few years these planters made huge profits, which induced several rich Coorgs to open out their own coffee gardens themselves, and they soon found that neither their cattle died, nor that their rice fields failed. Since then coffee found its home in Coorg."

In his official report to Government, Captain Martin, Superintendent of Coorg, corroborates the above account.

Pioneer European planters opened the first coffee estates in 1854, i.e., about six years later than in Ceylon.

Soil and Elevation.

There was naturally a great rush for this new industry, and very little attention was paid to climate, soil and situation—a mistake which resulted in the ruin of many an enterprising planter. Past experience has shown that land covered with dense forest and rich soil is best suited. The elevation should be about 3,000 feet, but this is not so important as the rainfall, which should average between 80 and 120 inches. High winds, hot western situations facing where the sun's rays are fiercest, should be avoided.

Nurseries.

Having selected suitable land, the first care of the planter should be to prepare a good nursery, situated close to water. There are several methods of raising plants in nurseries. Ordinarily the practice is to prepare and to put in the seeds 5 to 6 inches apart. The plants, so raised, require great attention when they are transplanted into the field, as the roots are likely to be damaged, and as the plants suffer from drought if a break in the weather occurs. Many planters prefer therefore the more expensive method—and by far the most satisfactory one—of raising the plants in bamboo baskets or in ordinary pot tiles (two tied together). Before planting the baskets are cut open and so removed, whereas the pot tiles are carefully removed when the plant is in the ground. As pot tiles can be used for several years their advantage is obvious.

In order to estimate the necessary quantity of plants wanted, it is interesting to know that one bushel of coffee is supposed to contain about 80,000 seeds, making an allowance of 10 per cent. for failures, we get 70,000 seedlings per bushel of coffee. It is, however, better to have a larger nursery than what is actually required.

Clearing of Land.

From the day the land has been acquired steps should be taken to fell the jungle. Young coffee plants thrive best with very little shade, and therefore only the most useful shade trees are left scattered about; good shade trees which are very slow growing are left standing in preference to quick growing, although useful ones. Thus for instance, Biti (*Dalbergia latifolia*) Taria (*Terminalia beleca*) Honne (*Pterocarpus Marsupium*) and Sagade (*Schleichera*

trijuga) would not be interfered with unless found too close together. At the time of felling it is advisable to make separate piles of the felled trees and undergrowth, as far apart as possible, so as to obviate running fire through the clearing, which would not only be fatal to some of the standing trees, but also destroy most valuable humus. In the "good old days" thousands of pounds worth of irreplaceable valuable manure were thus consigned to the flames.

Planting.

Having cleared the land, it is lined for pitting. The distance between the trees is usually 5 feet by 5 feet *i. e.*, 1,742 per acre. With the first rains pits are dug $1\frac{1}{2}$ by $1\frac{1}{2}$ by 1 foot. The planting season begins with the first burst of the monsoon. When filling the pits the surface soil surrounding it, is first put in, and the sub-soil which was dug out is not put back again. Planting requires great care, although simple enough. The earth should cover the pit slightly raised above the surrounding ground say about six inches, since the earth naturally settles. This is done in order to prevent water logging.

Shade Trees.

Simultaneously with the planting of coffee, attention must be made to planting shade. The three-year old coffee plant requires shade, and therefore shade plants are put down directly after the coffee has been planted. This should be done in avenues, from east to west, 10 to 15 feet apart in the avenues, and 20 to 25 feet between them. The sun has a southern declension during the non-rainy months, and planting shade in this way will ensure a lateral shadow, being cast on the coffee from south to north. When the shade trees begin to crowd one another, every alternate one may be eliminated—first in the avenues, and subsequently every other avenue might be removed, if necessary. The selection of suitable shade is very important in view of the object of shade trees being two-fold:—protecting plants from heat; and supplying the soil with manure from the leaves shed. Much has been said and written on this subject. But as in Coorg the finest coffee estates are found to contain varieties of shade trees, it may be concluded that a variety is preferable to a single kind planted. Trees of the ficus kind which were at one time considered excellent are now discredited. These are Karé basari (*Ficus infectoria*), Bili basari (*Ficus tsiela*) Atti (*Ficus glomerata*) and Goni (*Ficus wuyorensis*). A slight sprinkling of these is however advisable. They are fast growing and as they do no positive harm they may be planted in order to secure rapid shade. Some of the most useful shade trees have been named above. Of these Biti and Tari are too slow growing to be depended upon for shade purposes, if planted. The Sagade (*Schleichera trijuga*) Panaval (*Erythrina lithosperma*) Bilavara (*Albizia odoratissima*) are considered excellent, Silver Oak (*Grevillea robusta*), Jak (*Artocarpus integrifolia*), Noga (*Cedrela Toona*), Howlige (*Artocarpus fraxinifolius*) are also very useful. It is often found that the same species of shade trees does harm in one place and proves useful in another, and as undoubtedly situation and quality of the soil have much influence, it rests with the planter to watch carefully which trees should be removed later on. The *Erythrina lithosperma* has been highly spoken of and deserves special notice. But it is supposed to do harm by encouraging the increase of the white meal bug, which lives upon the delicate bark of the roots. Its great advantage is attributed to the fact that—by belonging to the leguminous order—it consumes no nitrogen from the soil, but extracts it from the air by means of bacterial nodules on its roots, thereby enriching the soil by this valuable ingredient. It is of no use for shade when too old, and therefore it should be renewed after a few years by replanting either by cuttings, or from plants raised by seeds. It is almost superfluous to add that along with the coffee nursery, one for shade should be raised.

Cultivation.

The next work is a sound digging of the soil: this opportunity should be made use of to remove all roots by heaping them. Then, all that remains is to supply any failures, to lay out roads which were traced before pitting, and for which a blank space has been left. It is presumed that necessary arrange-

ments have already been made for the housing of permanent cooly labour in sheds, and that the planter has himself taken care for a straw-roofed house for himself, until better times allow him a permanent bungalow. Beyond a digging and supplying of failures there is practically no work in the following year.

Maiden Crop.

In the third year the first crop, known as the maiden crop, is expected, provisions must be made for constructing a *pulp house*, drying ground and suitable machinery for pulping.

Between the second and third year the bushes have reached a height of about 3 to 4 feet. They must at this stage be "topped." Some planters prefer topping at 3 feet leaving a "sucker" to grow, which is topped at 4 feet. Others let the plants grow to 4 feet and then top them.

In the third year after a few showers of rain—so-called blossom showers in March or April—the trees comes into flower. The flowers are snow-white and resemble those of the Jessamine with a strong sweet aroma. A coffee garden in blossom is a delight to the eye; as the pure white of the flower is gently mixed with the dark green foliage. It has the appearance of a winter landscape, surrounded by the luxuriant growth of the tropics. Myriads of bees perform unknowingly their useful work of fertilisation. But in a few days this splendour disappears. The coffee tree gives two or more blossoms yearly; but the first is the principal one, on which the prospects of the year depend.

Handling.

With the ensuing monsoon the first work concerning the tree, and technically known as handling, begins. It must be remembered that each primary throws outside branches known as secondaries, these throw out branches called tertiaries, the latter appearing in the fourth year. Also many "suckers" begin to shoot up along the stem. The object of handling is to remove the tree of unnecessary wood. It is, however, very important to see that the work is not overdone, and not to strip the tree of too much of its clothing. The rules by which handling may be broadly laid down are as follows:—(a) remove all suckers, (b) remove all secondaries which are within 6 inches of the stem in order to admit light into the interior, (c) remove such tertiaries as turn backwards towards the tree or grow upwards thereby disturbing the symmetry of the growth, so necessary for further manipulation of the tree.

Remarks on Digging and Mulching.

Coffee being a surface feeder, digging should be avoided after the third year, as the roots have by this time spread broadly round the trees. It is, therefore, obvious that digging is bound to injure the roots. Notwithstanding this fact, the "old practice" of digging is continued by the majority of the planters. Such is the force of Mamool.

There are several estates in Coorg which have not been dug for about eighteen years, and which give yearly excellent crops and are considered the finest properties in the Province. The objects of digging are said to be twofold:—(a) to remove weeds (b) to make the soil loose. As regards weeds they are best removed by hand weeding, which has the advantage that they disappear after a few years, whereas digging constantly disturbs the soil, thereby bringing to the surface new seeds, which under a certain depth cannot germinate. One of the chief defences in favour of digging is that it is absolutely necessary in order to make the soil loose. The immediate effect of digging undoubtedly fulfils this object, but the soil becomes hard soon after rain has fallen, and digging has to be renewed often twice or more during the wet months. Keeping in view the disadvantages of digging, and in order to save money, several planters gave it up experimentally. In cases when the coffee had well "closed in" the process succeeded admirably, but in other places where the coffee was less healthy and vigorous they were sadly disappointed when they found that their estate was dying out; they naturally speedily returned to the old process, with no more inclination to try the new method; the success of which in other

estates they attributed to different climate, soils and circumstances. Had they, however, "mulched" the soil, *i.e.*, covered with green leaves, preferably grass, the results would have been quite different. On this subject Dr. A. Lehmann gives most valuable information in his bulletin No. 2 Notes on Coffee Cultivation, where the advantages of mulching are enumerated as follows:—

- (1) The tendency to preserve the soil moisture,
- (2) The tendency to prevent the formation of a crust on the surface,
- (3) The tendency to preserve the soil in a loose and open condition and retarding the growth of weeds, and.
- (4) Allowing the rain to enter the soil more easily and preventing the surface washing.

Mulching is, however, by no means a cheap process and is out of question in many cases where no grass or leaves are available in sufficient quantities. It is on the contrary very expensive; but when once the soil has regained its natural condition, and when the coffee trees have well closed in, then no more mulching is needed, as the leaves from the shade trees and from the coffee itself cover the soil with rich valuable mulch. Handweeding also helps considerably to "mulch" the soil.

Crop.

As the crop is expected in November, the estate should be "clean" by that time, and all labour free for crop which lasts sometimes till the middle of January.

Pruning.

After the crop another new process known as pruning begins. Pruning has been much overdone in the past. It should consist of merely removing dry wood, or any suckers which may have sprung up, but should interfere as little as possible with any green wood. At the time of pruning the plants are approaching the dry season, and want all the leaves they have, in order to preserve the soil moist. Mutilation by heavy pruning must therefore necessarily be injurious.

Manuring.

Manuring is the most important work to which the planter has to direct his attention. Every plant wants for its normal growth in sufficient quantities, the following ingredients as its nourishment:—

1 Carbon; 2, Nitrogen; 3, Water; 4, Phosphoric Acid; 5, Potash; 6, Lime; 7, Magnesia; 8, Iron; 9, Sulphuric Acid; and 10, Chlor. These plant foods are required in different quantities by different plants, and according to varieties of the soil must be given in larger or smaller quantities. But not all have to be supplied in shape of manure, and we deal now with each of these separately.

Carbon is absorbed in the form of Carbonic acid by the leaves from the air, which contains inexhaustible quantities.

Nitrogen.—Although immense quantities of this valuable manure are contained in the air (about 21% oxygen, 9% by volume nitrogen), yet only the plants of the leguminous order (gram, peas, beans) absorb their wants from the air. All other plants are dependent on what they find in the ground, and for them all that is contained in the air is worthless. The quantity contained in the soil is unfortunately not sufficient to produce year after year good crops, and therefore this food must be given in shape of manures, such as saltpetre, cattle manure, oil cakes, etc.

Phosphoric Acid and Potash.—Although existent in many soils in large quantities it cannot unfortunately be absorbed except in very small quantities by the roots, because these ingredients are not available in a soluble condition. Such nourishment must also be supplied by manures such as bone, meal, poona, etc.

Potash and Lime are generally found in the soil in very small and insufficient quantities. We, therefore, must supply potash by saltpetre or other manure.

Lime is given in bone manure; or by applying lime itself. Application of lime is in so far very important, as it dissolves phosphates contained in the soil.

As regards *Magnesia, Sulphuric Acid and Chlor* no special provision is necessary as all soils have enough. We must bear in mind the fundamental law of nature, that a plant cannot live from a single food, but its food is made up from different ingredients. If one or the other is not found in insufficient quantities, the growth is stunted. (Dr. Stutzer, *Die Duengung des Bodens*).

There are many methods of manuring, and much has been written on this subject. The planter has to decide on two points:—(a) the kind of manure which has to be selected, (b) the method of applying manure. Reference has already been made to "mulching" which consists more or less of green manuring. Amongst manures applied to coffee the following are most used:—

(a) Cattle manure, (b) poonac, (c) Bone meal, (d) fish, and (e) saltpetre. These are used either by themselves or mixed. On the subject of manuring perhaps no one has done so much for the coffee industry as Dr. A. Lehmann, Agriculturist Chemist to the Mysore Government. His researches are embodied in the Annual Reports of the Department of Agriculture, Mysore State. Important are his remarks on "Fertilizers":—"Generally there are three or four kinds of plant food of which the soil is liable to contain a comparatively small quantity, and which as a result we must be ready to supply in the form of manure when needed. These substances, which are called Nitrogen, Phosphoric Acid, Potash and Lime, can be separated out of the soils and out of the manure by chemists, who can therefore tell us to a certain extent what the soils are deficient, and what fertilizers must be applied to give the best results. For the soils are not all alike, and the plant food one soil may be particularly deficient in, another soil may have in sufficient quantity for immediate use. Also the manures have not got these substances in equal quantities. One kind contains a particularly large supply of one kind of plant food, another has principally another kind of plant food, which it can supply to the soil. One manure may give large crops on one field to which it supplies just the kind of plant food which is missing, while it will fail to produce an equally good crop on another field, however much of it may be applied, if it does not contain that kind of plant food which is required for that particular field. For this and other reasons these one-sided or special fertilizers, are not used much in countries in which agricultural chemists have not been at work. As a rule only such manures find favour there which supply all the plant food which is likely to be wanting on an average soil. We may therefore call these manures complete fertilizers to distinguish them from the one-sided or special fertilizers, which supply principally one or, at most two kinds of plant food. These complete fertilizers are generally excreta from domestic animals. In such the different kind of plant food are generally present, only in small quantities, and not always in the proportion in which they are required by the crop on a certain soil. As a result these manures may often be mixed with small quantities of special fertilizers to great advantage." It is for reasons given above by Dr. Lehmann, that artificial manures have not produced results satisfactory with all planters who tries them.

On this subject Dr. J. A. Voelcker writes in his book "Improvement of Indian Agriculture" as follows:—

"If the coffee planters would make a few, but careful, experiments for themselves, they would certainly be able to obtain more information as to their particular land than could be given by anyone advising them, but who does not possess the requisite information as to the soil, the situation, and other local conditions, or even as to the manures which are readily obtainable. Manures, such as bones, oil cakes, etc., are too generally used because they have always been used, and because there is a general belief in their utility, but it is more than probable that in some cases large sums are needlessly expended on them, while in others, lack of lime, potash or other soil constituents, may be responsible for a diminishing yield." It is not possible for a planter to wait

for years until his experiments have shown him what kind of manures are really wanted for his estate. But this does not preclude experiments on small patches of his estate. A mixture is in any case more advisable than the application of single fertilizers only. Below I mention a mixture, which was used with great success on a large group of estates in Coorg:—

	RS.	A.	P.	
2 cwts. saltpetre cost Rs.110 per ton	...	11	0	0 per acre
1 cwt. bone meal " 70 "	...	3	8	0 "
1 cwt. white castor poonac at Rs.70 per ton	...	3	8	0 "
Cost of application say, Re.1	...	1	0	0
		Rs. 19 0 0		

Of the above mixture 3 cwt. per acre is sown broadcast on the land. The amount for each tree depends on the width of planting:—1 oz. per tree, planted 5 x 5 comes very nearly to 1 cwt. per acre; $1\frac{1}{2}$ oz. at 6 x 6; about $\frac{3}{4}$ oz. at 5 x 4, etc. The analysis of above manure is as follows:—

	Nitrogen.	Potash.	Phosphoric acid.	Lime.	
Saltpetre, Coimbatore	9.12	36.76	—	—	} Dr. A. Lehmann, Annual Report 1905.
Bone Meal, Bangalore	3.79	—	22.20	30.28	
White Castor cake,,	6.47	—	2.62	0.73	
Per Cwt.	19.48	36.76	24.82	31.01	

Now let us compare this with cattle manure, Bangalore, which according to Dr. Lehmann is analysed as follows:—

Nitrogen.	Potash.	Phosphoric acid.	Lime.
0.18	0.24	0.09	0.31

It is calculated by experienced planters that 10 tons of cattle manure per acre cost Rs.80.

Accordingly the cost of manure works out as follows:

Artificial per acre.	lbs.	Cattle manure per acre.
Nitrogen	...19.48 + 9.12 = 28.66	} Cost Rs.19 per acre. {
Potash	...36.76 + 36.76 = 73.52	
Phosphoric acid	...44.82 + — = 44.82	
Lime	...81.01 + — = 81.01	
		38.52 lbs. { Cost Rs.80 51.36 „ { per acre. 1.92 „ { 66.24 „ {

Synchronously with the application of the above mixture, experiments might be carried out by adding or diminishing one or the other fertilizers, and although for careful comparison the crops should be separately measured, yet for practical purposes the experienced eye of the planter will very soon detect the difference.

Cattle manure has been given up on many estates, partly because there was difficulty in getting sufficient quantities, partly because good manure was not procurable; and chiefly on account of the expense. There is very little attention paid to preservation of cattle manure, which is evidently the chief cause why it is so poor in India. Good cattle manure in Europe has been analysed as follows:—

Nitrogen 1.00%, Potash 0.61%, Phosphoric acid 0.42%, Lime 0.29%, (Wolf's Düngerlehre). Accordingly if more attention were paid to cattle manure, its application would not compare so badly with artificials. It must be remembered that cattle manure acts as mulch, and has effects on the soil very similar to those mentioned above under "mulching." As to whether artificial manures force the soil, an experienced planter who worked with great success gives his opinion as follows:—"As far as I can tell at present the application of complete "artificial" in small quantities annually does not force the trees, and with no digging and careful attention to the mulch which keeps the soil in good mechanical condition we should be able to go on applying it for many years."

As regards saltpetre, scientific experiments carried out by Lawes and Gilbert have proved, that there is absolutely no exhaustion of the soil by its application. (Stutzer Chali saltpetre). Referring again to experiments, I can do no better than to give a translation of what Stutzer writes :—"It was hoped, that we would by analysing soils succeed in obtaining positive results as to which nourishment must be applied to this, or to that soil, in order to increase its fertility. This hope has not been fulfilled. It is possible to find out by chemical and mechanical analysis, which ingredients the sample of soil, contain, but we cannot find out from such analysis how much of it can be absorbed by the roots of plants and whether these plant foods are evenly distributed over large areas." He continues :—"By experiments with manures we find out the productive value of the field, and we also ascertain the benefits of the different kinds of the manures. Such experiments have no standard, scientific value, but have only a local practical one."

Green Manuring.—This kind of manuring consists of growing certain plants, cutting them green and either digging them into the soil, or leaving them on the surface. This is done automatically by weeding; but what seems most wanted on estates is green manuring by leguminous plants. Very few trials have been made, and it may be worth the while for planters to devote some attention to this subject, especially as the flora in Coorg abounds with leguminosæ

Analysis of other Fertilizers by Dr. A. Lehmann.

		Nitrogen.	Potash.	Phosp. acid.	Lime.
Ponac	...	4.14	—	1.06	0.67
Coffee pulp dried	...	2.33	2.17	0.39	1.00
Fish	...	6.17	—	7.51	—
Dried blood	...	10.40	—	—	—

Enemies of Coffee.

(a) *Borer*.—One of the most necessary works is the attention to the enemies of coffee. The most formidable one is the coffee borer (*Xylotrechus quadrupes*), a small beetle which has been the ruin of many a promising coffee estate. As with other beetles in Coorg, the borer beetle is most numerous in September and August, but it is found also in other months, especially in the dry season. The beetle is itself harmless, it lives for about a fortnight. During this short period the female is busy depositing its eggs—about one hundred in all—in the fissures of the bark of the coffee bush. After about a fortnight the ova bursts, and the young grub eats its way into the stem. (Richter, Manual of Coorg.) In this state the larva lives in the tree for about nine months, and during such time bores within the stem intricate tunnels in various directions. The worm then turns towards the bark and there transforms itself into the pupa, which bursts after about two months. The young beetle speedily works itself to the surface. Some coffee trees contain some ten or more larva. The appearance of the borer in the tree is detected very soon after the first showers of rain, so-called blossom-showers, in March and April. This is indicated by the leaves which turn yellowish green and by the young shoots which are shrivelled up. The chief remedy against borer is to remove the tree with the roots and to burn it. The tree snaps off at a moderate pull; and as this borer goes often into the tap root, it is essential to remove the roots as well. The planter must be continually on the lookout for the borer from March to September, and for this purpose several reliable and intelligent coolies go round the estate continually inspecting each bush, and removing such as are attacked by the borer. Attempts to catch the beetle have proved futile. As the beetle deposits its eggs in the fissures of the bark, several planters have tried the remedy of rubbing off with coir gloves the rough surface of the bark. But it is difficult to prove whether this process has been of much use, for it is obvious that once the worm has bored into the stem no amount of scrubbing will prevent further damage. The borer generally attacks estates which have been neglected, and where, in consequence, the trees are not in full vigour, and also where the shade is neglected; but where the coffee is one "sheet" covering

the ground completely, there is very little borer. Where once a vacant patch has been formed by borer, it soon expands, as the beetle evidently does not fly far to deposit its ova.

Unfortunately borer is not the only evil attacking coffee. The planters have to face other evils, namely :—Leaf disease, Leaf rot, Stump rot, Root rot, and Mealy Bug.

(b) *Leaf Disease*.—In July we find a yellow dust appearing under the leaves, first in one or two leaves of a tree. This spreads very rapidly ; and in a short time huge patches of an estate are covered with leaf disease. The trees which suffer most are those with a heavy crop, and as the leaves are most essential in nourishing the fruit, it is but natural that much of the crop suffers by not getting ripe or well developed. The cause for leaf disease is yet unexplained, and no effective remedy has as yet been discovered. Spraying the trees with a solution of " Vermorite " has been tried ; and although excellent, it is impossible to do this on a large scale. The cost of vermorite is Rs.180 for five cases delivered in Coorg. This quantity is sufficient for two applications for 84 acres, whereby the nett cost per acre including labour amounts to Rs.7 roughly. The above remedy only checks the disease and does not extinguish it. Trees have to shed their leaves in any case ; and therefore an estate which is in good condition very soon recovers from the attack ; whereas " poor coffee " goes from bad to worse. The best remedy therefore appears to be rational cultivation.

(c) *Leaf Rot*.—Leaf rot is different from leaf disease. Here the leaves turn black and seem to rot. Fortunately this disease is limited to small patches only ; and the cause is often found in too dense shade, too heavy rain, or defective drainage, or to certain kinds of shade trees.

(d) *Stump Rot and Root Rot*.—More serious than the diseases just dealt with are those affecting the roots. Both are very similar and both kill the trees outright. For stump rot there is a remedy, but against root rot there is none has been found as yet. The most visible sign to distinguish between the two is that in stump rot the trees die very suddenly whereas those attacked by root rot linger and die gradually. This is the criterion by which planters go. Dr. Lehmann devoted considerable attention to this subject, and gives most valuable information in the " Fifth Annual Report of the Agricultural Chemist, 1903-04 (pp 30-31)." He recommends " the digging of deep trenches about 18 inches to 2 feet deep well outside the affected part and lining the affected area." This has been tried with success. Stump rot generally appears where there are decayed roots of trees, and accordingly it has been tried to check the disease by removing such roots, but this remedy proved futile.

With regard to root rot Dr. Lehmann writes :—" There are still many places in which root rot is unknown, and the greatest care should be taken to prevent its introduction into unaffected localities. It is most likely due to a fungus which spreads in the soil. Managers of estates still free from this disease, should on no account import plants from an affected estate, as these are liable to carry infection either themselves or through particles of soil, still adhering to them."

(e) *Mealy Bug*.—Another enemy is the " Mealy Bug." The name itself most appropriately describes this insect, which is of the size of an ordinary bug, and covered with a white mealy dust. This bug lives on the roots, where it builds cells in which eggs are deposited for the coming generation, of which several hundreds are to be found on the roots. Old coffee trees do not die from the attack of the mealy bug, but young plants, of up to the age of three years, are killed. The bug appears to feed on the bark of the root, which rots, and in consequence the tree must die. The general appearance of full grown trees is poor, where the mealy bug exists. Some planters are of opinion, that the nurseries were the original habitation of the bug, and that with the young plants the pest is distributed over the estate. Unless young plants are protected against this pest, the vacancies in an estate cannot be supplied. The chief attention must therefore be directed to seedlings in nurseries, and to young plants in the estate. As

regards remedies, Mr. Maxwell-Lefroy, Entomologist to the Government of India, thoroughly supported those applied with great success by Mr. A. H. Jackson, of the Dubarry Estate, South Coorg. Mr. Jackson very kindly supplied me with the following information:—

"Lime and Sulphur are an antidote for white mealy bug. I paid Rs.7-8-0 per cwt. for Sulphur delivered on this estate. As this stuff comes under the "Indian Arms Act," I had a good deal of trouble getting it imported, etc. There is a pretty heavy duty on it. The cost in Europe was only Rs.4-12-4 per cwt. I think it was shipped direct from Italy. The quality was "Raffinato Macinato." (Refined ground). The lime can be produced locally at a cost of about Rs.14 per ton. The mixture I use is:—four parts lime to one part sulphur by weight.

I am unable to give you the cost of application per acre, as it all depends on the number of supplies there are per acre, but in any case it is very little, as 2 oz. of the mixture is quite enough to apply per plant.

When mixing soil for my plant baskets I use one basket of the mixture to forty or fifty baskets of soil. This mixture is not a preventive but only a check on the mealy bug.

I also use "Soap and Nicotine Emulsion" made as follows:—

1-2 lbs. common native tobacco.

4 gallons of water soaked for 24 hours.

2-½ bar soap with 4 gallons of water dissolved completely. The above mixed together in equal parts. This mixture is a splendid thing to use against bug pests. I apply about a wine glass full of the mixture to each plant in basket, and it kills all bugs and has no bad effects on the plants. This mixture will not prevent the bugs from re-appearing; as far as I know the effects will last two months or more, the cost per thousand plants is very little. If applied in April and again before planting out into the fields, say the middle of June, it has a very good effect. I do this to all my basket plants and apply lime and sulphur mixture in August or September in the field.

Previous to using these antidotes I could not raise supplies, but now I am quite satisfied with the way they come on."

There are other diseases of unimportant nature which need not be dealt with here.

Disposal of Crop.

As regards the disposal of the crop there are several methods. The small planter, as a rule the native, picks his crop ripe and green, dries it on the drying ground, known technically as barbecue, and after pounding and cleaning it, sells it as "native coffee" to coffee dealers on the spot. But where there are large crops it is preferable to sell the coffee in the London market. The coffee is specially cured for this purpose, and the following is the ordinary practice:—

Ripe coffee is picked and bought to the pulphouse in the evening, where it is measured in a "box." This box is of no standard size. It varies on nearly every estate, and takes from say 180 to 160 boxes to make the ton of parchment, which latter we roughly calculate at 90 imperial struck bushels to the ton. The average of the box may be stated as 140 to the ton.

The coffee is usually pulped in the evening and the parchment is left heaped in the corner of the vat covered with matting for about 36 to 40 hours and allowed to ferment. This fermentation acts on the gelatinous matter, which covers the parchment, so that it may be easily removed on the morning of the third day. The parchment is then spread, trodden by coolies to loosen the substance still adhering to the parchment and washed. Light coffee is skimmed off and the parchment washed till it is free from sticky matter, and the "tails" (consisting of unpulped berries and some skin) are washed and florted off.

The parchment tails and light coffee are measured separately and taken to the barbecues to dry. Some estates use tables constructed of bamboos half inches apart, over which a coir mat is spread to hasten drying. Others do so on tiled or hard-earth so-called barbecues, i.e., drying ground.

The coffee is turned several times daily to ensure even drying. When sufficient parchment is stored to make a shipment, it is sent to one of the curing firms, of which there are several at the coast. The practical work of the planter ends here. From 7 to 10 tons lots are considered best and easiest to sell in London. The curing firms remeasure the coffee (parchment) on arrival in order to check the receipts with the quantity advised as despatched. It is then spread and dried down to about 27 lbs. per bushel, which is "peeling weight."

At this stage the "parchment" is transferred to the "peeler," which breaks up the parchment skin, removing most of the silver skin, and leaving the bean ready for the sizer. The bean used to be put through a "polisher" which removed practically all the silver skin and gave it a glossy oily appearance. It was found that coffee treated by the latter process, although it looked well for a time, soon lost its characteristic appearance.

Polishing is now seldom or never done for Coorg planters. The "sizers" are inclined revolving cylinders of wire, with partitions of various sized meshes. As the coffee rolls down the beans pass through the various holes into boxes and are classed as A or 1, B or 2, C or 3, P. B. (Peaberry) and T (Triage). Peaberry is a rounded bean. T. is a broken and malformed bean. The latter two are removed by handpicking. In some years there is a bolder larger bean which is called extra A or O size, and of course sized separately.

Machinery.

The only machinery used by the planter on the estate is the pulper, of which there are various makes and descriptions.

In the Wynaad and Nilgiris planters mostly use the "disc" pulper.

In Coorg practically all estates use the "barrel and breast pulper," which is considered the best for large crops. Pulpers are supplied by Messrs. John Gordon & Co., England; Walker & Co., Colombo; and Massey & Co., Madras. As Messrs. Gordons' barrel pulpers are most in use in Coorg, it must be presumed that they have been found the best for the work. Prices vary from Rs.300 to 600 for different sorts of pulpers. Practically nothing is known of American pulping machinery, and it is quite possible that with these makers' larger experience, they are producing better coffee machinery than that generally used in India, which has been very little altered or improved for the past 20 or 30 years, and which in the opinion of many planters is open to improvement. The power used is hand, cattle water, oil or steam engines of 3 or 4 horse power.

Firms and private owners have agents in London to whom the coffee is shipped by the curing firms under instructions. The Bills of Lading are posted to the agents who take charge of the shipment, and whose brokers sell the coffee.

The agent, as a rule, acting on his own discretion or in consultation with his brokers, has the power to sell or withdraw any shipments or parts of a shipment that may meet an adverse market; or to reject offers which may not come up to his valuation. He is seldom or never interfered with from India, it being considered that, being on the spot, and in touch with the market, he must necessarily know what it is best to do.

Valuation of Coffee.

In the London Market valuation of Coffee is now done chiefly by the liquor test. The information below has been kindly supplied by a buyer of Coffee in London:—

"The weight of coffee means quality, practically always. Where a sample runs 90 roasted beans to the $\frac{1}{2}$ oz. it is generally good. The home trade is generally done by "liquor;" and to some buyers it matters very little what the appearance of the coffee is. A good looking often liquors well, but not necessarily so. Foxiness is not a bar to good liquoring quality. Peaberry has a better flavour than other sizes, probably because the nourishment of what was prepared by nature for two beans has gone into one. There is very little liquoring difference between A. B. & C., and it is sometimes found that B. & C. liquor better than A. To test roasted coffee put $\frac{1}{2}$ oz. of powder to $\frac{1}{2}$ pint of boiling water. The fluid is tasted as soon as cool enough, and when nearly cold. The best flavour is obtained when it is nearly cold."

Cultivation Expenses

The annual expenses on a coffee estate are yearly based on the expected crop. In former times this was not the case and expenses ran high, whether a good or bad crop was in store. Unfortunately, however, many planters now-a-days cut the expenses in shape of manure, which is no doubt a big item in the expenditure, but certainly a very unwise policy. They have to do so in most cases, because the firms who finance them will not see the importance of manure, and thus gradually contribute to the ruin of estates. Generally the year's expenditure is estimated to run up to Rs.80 per acre everything included; but in bad times this is "cut down" to Rs.60 or less. The usual rates paid for work are as follows:—

(N.B.—Re.1=1s.4d sterling).

Digging.—By contract labour with moderate weeds Rs.6 per acre, by own labour Rs.5 to 5-8-0, but Maistries' commission at about 15% must be added to this.

Fork Digging.—By contract Rs.4 to 5.

Handweeding.—With moderate weeds from Rs.2-8-0 to Rs.3 per acre, if an average of three weedings are done in the season.

Picking of Crop.—A good crop of 4 cwt. per acre at Rs.40 per ton. Smaller crops cost comparatively more to pick.

Pruning is about Rs.3 to Rs.8 per acre, depending on the thickness of the coffee.

Handling and Suckering.—The former process costs about Rs.3 to 5, and the latter about Rs.2

Nurseries cost at the rate of about Rs.6 per 1,000 plants raised.

Carting and Curing Crop.—Cost Rs.70 a ton. A cart takes from 10 to 15 cwts. to the coast, a distance of about 60 miles a cost of Rs.12.

Freight and Home Charges.—The amount to about 7% on the whole sale.

Planting a New Clearing.—Digging pits 18 inches cube—about Rs.10 per 1000 pits. The first digging costs about Rs.9 to 10 per acre, second about Rs.6.

Superintendence is calculated at about Re.1 per acre per month.

Maistries' Commission varies, but averages 13 to 15%; the maistry gets this commission on the value of work done by his gang of coolies.

Land Tax.—Rs.2 per acre.

Contingencies.—Rs.10 a month for an estate of about 150 acres.

Miscellaneous.—(a) Tapal cooly, kitchen cooly (usual allowance for the Superintendent) Rs.15 a month. (b) Shade lopping, cleaning fire paths, upkeep of roads, bridges, fences; cost of which depends on circumstances.

Cattle Upkeep.—Bandy bullocks cost about Rs.20 a month, and are wanted for carting manure, pulping, etc.

Curing and Pulping.—About Rs.10 a ton.

Matting, Baskets and Bags for picking and pulphouse use Rs.150 per annum (coffee is packed in two ways, *i. e.* 1, loosely in date and coir mats; 2, in Bags of three Imperial bushels each).

Repairs to Buildings.—Rs.20 per annum (bungalow, lines, cattlesheds, pulphouse, etc.)

Crop Outturn.—In his official report to Government, dated 1856, Captain Martin estimated the average outturn of parchment coffee as 7 cwt. per acre, and that on native coffee estates at 15 cwt. per acre. The price of coffee was then about Rs.600 per ton as compared with Rs.650 now. The average outturn then realised is now of very rare occurrence in European estates, and an average of 4 cwt. is considered very favourable. As regards native gardens they give not more than about $\frac{1}{2}$ cwt. per acre. There can therefore be no doubt that the coffee has deteriorated, partly because insufficient attention was paid to the selection of seeds, partly on account of the many pests and diseases which attacked coffee in the past; and partly owing to reduced expenditure.

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Madras Planters' Labour Law.

At a Special Meeting of the Wynaad Planters' Association, held on the 13th instant, to consider the amendments proposed to Act I. of 1903, the following resolutions were passed :—

1. The Association records its thanks to Government of Madras for giving them the opportunity of considering the proposed amendments to Sections 33 and 35 of Act I of 1903, contained in letter from Acting Chief Secretary, Government of Madras, dated 11th October.
2. They would respectfully point out these amendments were not asked for, and would increase the disadvantages which planters at present experience in obtaining labour.
3. The Association would ask Government to postpone for the present the whole question of amending the Act.
4. The amendments mentioned, while protecting the Maistry who fails in fulfilment of his contract from no fault, encourage the fraudulent Maistry by providing an easy means of escaping from his obligation.
5. With regard to the intention foreshadowed in the Chief Secretary's letter of 10th August to omit Maistries and Sub-Maistries entirely from Sections 33 and 35, the Association is of the opinion that this would render the Act useless.

The Wynaad Association realises that No. 3 of the above Resolutions is in direct negation of the request made by the U. P. A. S. A. that the amendments should be passed during the current year, but on further consideration of the matter the Wynaad Association trusts that the U. P. A. S. I. will see its way to fall in with the view that it would at present be better to postpone the amendment of the Act.

Popularisation of Coffee.

Mr. J. C. Sanderson writes that he has nothing further to report in the matter of the Popularisation of Coffee, as an interview is awaited with Mr. J. Ferreira Ramos, the General Commissioner of the Government of S. Paulo, who was expected to arrive in England shortly.

Mr. Sanderson has kindly sent the U. P. A. S. I. a copy of "Valorisation of Coffee in Brazil," which deals, amongst other things, with the necessity of taking steps to increase the consumption of coffee.

Valorisation of Coffee.

IN BRAZIL.

On the 29th January, 1907, a lecture on this subject was delivered before the members of the Antwerp Society for the Study of Colonial Questions by Mr. F. Ferreira Ramos, Civil Engineer, General Commissioner for Northern Europe of the Government of the State of San Paulo.

This lecture has now been published in book form, and copies of it have been sent to the U. P. A. S. I. by Mr. Stuart R. Cope, Secretary to the Anti-Tea-Duty League, and by Mr. Sanderson.

The following extracts give the gist of the lecturer's more important statements:—

**CAPITAL ENGAGED IN THE PRODUCTION OF COFFEE AND IN ITS DISTRIBUTION.
COST PRICE AND SELLING PRICE.**

Coffee is a product of first importance and of the highest utility. It attracts enormous sums of capital to the principal commercial centres of the globe, and represents immense wealth in producing countries; more especially in Brazil. We believe ourselves modest in saying that more than ten, perhaps twelve, milliard francs are directly employed in the world's production and commerce of coffee, almost one-third of which is invested in the import and export trade and, obviously, three-fourths in the production.

To give an idea of the capital absorbed in the coffee cultivation it suffices to note that in the State of San Paulo, which produces nearly half of the world's coffee (Brazil itself producing three-fourths), the capital employed is about one million seven hundred thousand contos, that is to say, almost four milliard francs.

If we rely upon this basis for the other producing countries, we easily reach a total of eight milliard francs for the whole world.

If, for the State of San Paulo, we deduct the cost of carriage, we may say that the value of the coffee plantations, including sheds for drying, factories with their engines for the preparation of coffee, dwelling-houses for proprietors and workmen, pastures, gardens, etc., is not less than two and a half milliard francs at the present rates of fixed exchange.

This State, possessing six hundred million coffee trees, the sum named represents an average of four francs for each productive tree.

According to very careful observations made in the State of San Paulo, 50 kilogrammes of coffee are produced by about seventy plants. If we consider that each tree represents an average capital of four francs we shall see that the capital necessary to produce one million bags of coffee, each containing 60 kilogrammes, is not less than three hundred and thirty-six millions of francs.

As mentioned above, fifty kilogrammes of coffee is the product of the capital value of seventy plants, or 280 francs, (a little over £11). If we allow an interest of five per cent. on this capital, and one per cent. for depreciation, we may calculate sixteen francs approximately as a reasonable return, which the capital invested should yield the planter.

Further, as the result of careful observations made in Brazil, it appears that the cost of production (cultivation, gathering, preparation, etc.) of fifty kilogrammes of marketable coffee, at present quotations, amounts to about 26 francs, (or £1-8-10). If to this we add 14 francs for all other necessary expenses incurred, either in Brazil, carriage, insurance, warehousing, brokerage, etc., we obtain a sum of fifty francs as the cost price of fifty kilogrammes of coffee delivered at the consuming market. And if to this price we add the interest on the capital and the allowance for depreciation, already estimated at sixteen francs, we find that in reality the cost of 50 kilogrammes of coffee comes to sixty-six francs before it reaches the European market.

In order, therefore, that the cultivation of coffee may be remunerative, the price should never be lower than sixty-six francs per fifty kilos in average.

Unfortunately, for several years past, prices of coffee, which during ten years had obtained an average of 97 francs per fifty kilos (occasionally even 130 francs) have fallen little by little to forty francs, and even lower . . .

The situation of the planter, in consequence of these very low prices, is most deplorable, and the question we are treating becomes one of paramount interest not only to Brazil but equally to every country where coffee is consumed. For, if Brazil were to abandon the cultivation of this produce in

consequence of the little remunerative prices obtained, the result would be disastrous.

The production in Brazil alone, as a matter of fact, follows the increase of consumption, . . . thanks to its soil and its climate, both essentially favourable to the production of coffee. This result is also due in part to the economical development of the country. . . . Brazil alone has increased its production ; the other countries showing rather a retrograde movement. . . .

Another question arises conjointly with the increase of the production, which clearly demonstrates the importance of the whole subject. It has been ascertained in San Paulo that in proportion to the development of coffee cultivation, the centres of production recede farther and farther away from the populous centres, and this naturally increases the cost of production. Surprised at this curious phenomenon, the learned Dr. Pereira Barretto exclaimed, "Coffee is a savage plant, which shrinks from the grand centres of civilisation." As a matter of fact it is always found in the neighbourhood of large forests. . . .

MEASURES TAKEN BY THE STATE OF SAN PAULO TO DIMINISH THE PRODUCTION OF COFFEE.

When prices first began to fall, and even when they were higher than the cost of production, no one imagined that the Brazilian State and the Federal Government would intervene to sustain the Coffee planters in their struggles against such an unfavourable state of things. . . . Later on, when prices fell lower and still lower, the Government of the State of San Paulo intervened, at the request of the planters themselves, with the object of limiting the development of the plantations, and to regulate the production of coffee, and passed a Law levying a prohibitive tax on the planting of fresh trees, to be in operation for a period of five years. We may safely assert that this Law was the salvation of many planters ; for, otherwise the production had certainly continued to increase more and more.

As a matter of fact, wide tracts of virgin soil still exist in the State of San Paulo, for, out of 1,855,000 hectares suitable for coffee cultivation, only 772,110 hectares were in the year 1902 devoted to it. It is beyond doubt that without the restrictive Law there would have been a large increase of plantations, involving the ruin of those planters, who were distant from the exporting centres ; and of those whose plantations, which either by reason of their age or other unfavourable circumstances, afforded but scanty and irregular crops.

The same Law also brought about an improvement of quality, and compelled planters to cultivate other products such as cotton, sugarcane, maize, rice, cocoa, etc. . . .

Already, in the State of San Paulo, these products have attained considerable importance.

With the object of diminishing the supply, before this Law was passed it was decided to withdraw from sale all coffee of an inferior quality.

MEASURES TAKEN BY BRAZIL TO REGULATE PRICES.

At the beginning of the year 1906, in spite of the beneficial influence of the Law mentioned, prices had reached such a low limit that the planters found themselves in a very precarious situation, which would have been rendered still worse by the extraordinary 1906-07 crop. The importance of the latter must be attributed to the exceptional conditions in the distribution of heat and rain.

What was to be done in face of these untoward circumstances : leave the planter to himself, to his own resources, or accord him official support ?

Left to himself he would have been compelled to abandon the cultivation of coffee. . . . To reduce the production by a million bags would necessitate, as we have already seen, the elimination of three hundred and thirty-six million francs capital ! Should we abandon such a large part of the production ?

Should we allow such a large sum to be lost? Should we allow such a vast public fortune to disappear, never perhaps to be regained?

We do not think so, since, once coffee-planting being abandoned it is very difficult to create a new plantation on the soil, where other coffee trees have died.

Confronted by this situation, it was therefore difficult to leave the planter to his sad fate, and the only way of helping him was by the official intervention of the Government of the three Brazilian coffee producing States, having as their common object, the discovery of some means of maintaining coffee at a remunerative price.

Had Brazil been a country possessing an abundance of capital, with sense of co-operation highly developed, the problem had long since been solved; but there, with a population of 21,000,000 inhabitants scattered over an immense territory of eight million square kilometres, where the planters of the same State are at long distances from one another, it was impossible to solve this great problem, without the support of the Government which intervened with the object of serving as an intermediary between the capitalists and the planters.

Acting on this principle, a Convention or Treaty, known as the "Convenio de Taubaté," was concluded between the three principal States interested, namely San Paulo, Rio de Janeiro and Minas Geraes . . .

THE INTERVENTION OF THE BRAZILIAN STATES IN THE QUESTION OF THE VALORISATION OF COFFEE: WHAT DOES IT CONSIST OF?

The official intervention of the Brazilian coffee producing States has for object to serve as intermediary between the capitalists and planters, in order to ensure a remunerative price for coffee.

The valorisation scheme adopted with this object consists . . . in levying an export duty of three francs per bag of sixty kilogrammes. With the proceeds of this tax the Government guarantees the interest, and sinking fund necessary for the redemption of the loans, enabling it to purchase and withdraw from circulation a quantity of coffee sufficient to maintain quotations above cost price. The coffee thus purchased is then placed on "warrant" in the principal markets of the world, to be sold only when quotations are judged to be favourable, so that the planter may obtain a reasonable profit, and thus not only avert ruin but, in addition, those extreme variations in the price which are always harmful to the consumer.

The scheme of valorisation likewise embraces propaganda to augment the consumption of coffee, but this consumption—although always growing—scarcely shows an average upward movement of more than three to four per cent. annually. . . .

CONJECTURES UPON WHICH THE VALORISATION OF COFFEE IS BASED.

This question of valorisation has not been taken lightly in hand. It interests not only the planter, who has a right to be justly remunerated for his labour, but also the countries in which coffee is consumed. It is not then in reality a purely local question, but one of wide and general interest; for, if Brazil were obliged to abandon to any considerable extent the cultivation of coffee—to seek in some other produce the reward of labour—one could scarcely imagine what would be the price of coffee consequent upon the fact of the supply not keeping pace with the demand.

But let us return to the actual state of affairs and examine what will occur after the heavy crop of this year. Therefore, we must first of all compare the consumption and production of the last few years. In consulting the diagram, illustrating the average statistics of these in the period 1899-1907, we see that in 1901-02 the consumption of coffee reached 14,000,000 bags, whereas the world's crop for the same year exceeded this demand by about 8,000,000 bags.

Since then consumption has increased, and from 14 millions in 1901-02 has reached 17 millions in 1906-07. The crop gathered during the year 1906, and

put on the market (crop 1906-07) may be estimated at $20\frac{1}{2}$ to $28\frac{1}{2}$ million bags. It will, therefore, only exceed the consumption of the corresponding period by $3\frac{1}{2}$ to $6\frac{1}{2}$ million bags.

The stocks of coffee, which—before the crop of 1901-02—were 6 million bags, rose after that year's crop to 14 million bags (6 existing plus 8); but, during the four following years (1902-03, 1903-04, 1904-05, 1905-06), the consumption exceeded production by about 5 million bags, so that the stocks on 1st July last were only about $9\frac{1}{2}$ million bags. Prices had varied between 29 and 56 francs per 50 kilogrammes.

For the quinquennial period 1906-07 to 1910-11 we shall see the same phenomenon as that witnessed during the period 1901-02 to 1905-06.

The production of the period 1906-07 will not, as a matter of fact, be lower than $20\frac{1}{2}$ to $23\frac{1}{2}$ million bags, a figure comparable with that of 1901-02.

We do not in any way exaggerate the importance of the present crop. Everybody knows the fact that all circumstances have been most favourable, and that all climatic conditions have co-operated to attain this result.

One may cast a doubt upon our contention, and urge that the crop of 1906 was terminated before that of 1901, but it must not be forgotten that the railways now are better equipped for the transport of coffee. In proof of this it is sufficient to point out that the San Paulo Railway Company, running between Jundiaby and Santos, through San Paulo, has doubled its lines of rails; that the Paulista line has nearly doubled the extent of its lines between Campinas and Jundiaby; and that the Mogyana and the Sorocabana, which were badly organised in 1901, now possess a very excellent service and dispose of a material (locomotives and trucks for merchandise), of much greater importance.

Further, the need for ready money has compelled planters to send their coffees with all possible despatch to Santos.

The crop of 1906-07 may then be compared to that of 1901-02.

Let us now show that the four coming crops (1907-08 to 1910-11) may, in regard to their importance,—come very near to those four small crops which followed the unusual crop of 1901-02. Several reasons enable us to predict that the four next approaching crops will be rather weak.

In the first place, about four years ago, as we have already pointed out, a Law was passed, which imposed a prohibitive tax on the planting of fresh coffee trees. As a consequence of this Law no further plantings, so to speak, have been subsequently made in San Paulo. In 1901-02 there were about 685 million trees, 140 millions of which were too young to yield any fruit, being only from one to four years of age.

After the application of the Law the number of coffee trees was reduced, owing to various causes. First of all there were many which fell victims to heavy frost; many succumbed to drought; others again perished, owing to want of proper cultivation, and lastly many of the old trees disappeared in the natural course of decay. It has been calculated in the course of six years, and for the reasons just stated, twelve per cent. of the trees of 1901-02 no longer exist, which makes a decrease of two per cent. annually. Consequently, for the years to follow one may only rely upon the production of about 600 million coffee trees.

During the four years which followed the crop of 1901-02 the average production of each tree in the State of San Paulo was about 720 grammes.

The figure for the four next crops seems to be rather exaggerated, and in support of this we refer to letters which we have received from well-informed planters, and upon the report of the Commission appointed by the Secretary of Agriculture for the State of San Paulo together with the Agricultural Commissions of 170 districts, to estimate the coming crop, that of 1907-08. According to the well drawn up Report . . . this crop will show a strong decrease in quantity.

This decrease must be ascribed to the exhaustion of the coffee trees, which have furnished just previously a bumper crop, and which besides have subsequently suffered from the effects of drought.

To establish our estimates of the four next crops we shall certainly not go beyond the truth in relying upon an average production of 720 grammes per tree. Knowing that 600 million full bearing trees actually exist, we reach a figure—for the State of San Paulo alone—showing an annual average production of 7½ million bags.

The other Brazilian States and the other producing countries having rather a tendency to diminish their production, we may without fear of mistake adopt the preceding averages. That will give us then, for the four years of the period 1907-08 to 1910-11 a total of 59½ million bags, which, added to the 20½ or 23½ millions of the 1906-07 crop, will give a total of 83 million bags for the quinquennial production of 1906-11.

Let us admit for the moment, although it is assuredly not the case, that the consumption does not increase, and always remains at 17½ million bags. We have then, for the period of five years 1906-07 to 1910-11 a consumption of 87½ million bags, that is to say four or five million bags in excess of the production.

The stocks which on the 1st July last were 9½ million bags will be reduced in 1911 to 4 or 5 millions.

Now, with a stock of about 7 millions and a consumption of 14 million bags, we have seen the price go up to 56 francs. Moreover, with stocks equivalent to 80 per cent. of the average consumption the average prices in general have been 97 francs. It is, thus, evident that in 1911, with a stock of 4 or 5 millions and a consumption exceeding 17½ millions the prices should unavoidably rise higher than the cost of production.

This fact established, the wisest measures to adopt—as was actually done in Brazil—would be to retire from the market a part of the actual surplus, and to distribute it over the four next years, in the same way as the eight millions excess in 1901-02 were divided over the four years which followed that crop. It is, therefore, if we accept the simile of an old story, one year of "fat kine" followed by four years of "lean kine."

We have tried to demonstrate that in 1911 stocks will be so small that the cost price will be readily exceeded by the selling price. We think that we are even within the truth, since in our calculation we have not taken into consideration the unforeseen circumstances which might diminish the importance of the four subsequent crops. A simple meteorological phenomenon, for instance, a slight frost, a cold wind, an excess of temperature or a shower at the blossoming season would be sufficient to diminish the production. So that the figures we have adopted will have a tendency to be diminished rather than increased.

Relying on the conjectures indicated, the Governments of the coffee producing States, supported by the President of the Federal Government of Brazil and by the bulk of the people's representatives, have resolved upon the valorisation of coffee. In doing this they have no other object in view but the protection of the country's agriculture by assisting the coffee trade to withstand those extensive speculations which so often have an influence on prices, and are really prejudicial to the consumer.

Valorisation has, besides, a tendency to level prices, and is not at all a Trust, as some people have endeavoured to convince us. The whole question has called forth a certain number of criticisms, but their authors have not taken into account some of the most important considerations affecting the subject.

Brazil really furnishes three-fourths of the world's production of coffee; it is therefore in a position to dictate to the markets. This is more the case in as much as the other producing countries, even at prices three times higher than those actually obtained, could not increase their supplies to an appreci-

able extent; and, even supposing that they possessed the enormous capital and the labour necessary for such increased production, they would still be obliged to wait six years before the coffee trees yielded full crops. Added to this, the cultivation of coffee presents essential difficulties . . .

The success of coffee cultivation depends indeed upon the possession of suitable soil, of forests which have been cleared. The coffee tree is an exacting plant, not only in regard to climate and the qualities of the soil in which it grows but also in regard to the exposure of the ground.

Brazil is the only country in the whole world which can and does supply these exigencies. It is only necessary to take a map and follow it on the isothermal lines in order to be convinced of this statement. One will see that there are indeed some small islands and some districts on the main land, where coffee may be produced, but the remainder of the regions comprised within the productive zones consists of deserts or of rocky lands, unsuitable and unhealthy.

Then again, for the successful cultivation of coffee one must be able to count upon sufficient labour for the gathering of the crops, and of capital for the erection of drying sheds, factories and workmen's dwellings. One must be able to utilise waterways and railways for the transport of the coffee, and seaports, properly equipped for loading the cargoes . . .

It will now be understood why my country has deemed it necessary to succour the coffee planters. For, if with our fertile soil, large rivers, verdant forests, blue sky, smiling meadows, and flower-clad gardens, we cultivate this produce which puts so much capital in circulation on the world's markets, this produce beloved by rich and poor alike, this beverage which in future will be regarded as an incomparable antidote to tobacco, a generous adversary to alcohol, implanting courage into the human breast, it is only natural that in the interests of humanity my country has determined to stretch out a helping hand to rescue a grand and rich industrial enterprise from threatened ruin.

By a single effort Brazil has thus rendered an immense service, first of all to the producing countries, in endeavouring to secure a reasonable remuneration to a praiseworthy and laborious industry; and secondly to the consuming countries, in avoiding the withdrawal from the markets of a large portion of the supplies, a withdrawal which in the near future would have raised the price of coffee to such an extent that it would have ceased to be the stimulating wholesome beverage of the poor, to become the delicious beverage of the rich.

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After much consideration and preparation, the planters of the Federated Malay States and of the Straits Settlements have created a central executive body. The Perak Planters' Association invited all others concerned to a conference at Ipoh on the 19th October, and representatives were present of the Malay Peninsula Agricultural Association, representing Penang and Province Wellesley; the United Planters' Association of the F. M. S., (Selangor); the Negri Sembilan Planters' Association; and Johore. There now exists 'The Planters' Association of Malaya.' Its head-quarters are at Kuala Lumpur; the financial year is to close on the 31st March and the annual meeting is to be held in April. Mr. H. C. E. Zacharia, hitherto Secretary of the U. P. A., has been appointed Secretary *pro tem.*, with a view to confirmation at the first general meeting, which was to be held on Sunday morning, the 1st December. The constitution of this new central organization is best described by quoting the determining rule:—

4. The Association shall consist of a Committee, consisting of the chairman and secretary and 5 per cent. of all members of constituent Associations; but when the membership of such affiliated Association be less than 80, an additional member shall be allowed.

MEETINGS OF DISTRICT ASSOCIATIONS.

The Mundakayam Rubber Planters' Association.

Minutes of Quarterly General Meeting held at Kadamankulam Bungalow, at 10 a.m. on Saturday, the 26th October, 1907.

PRESENT:—Messrs. J. A. Richardson, R. Harley, A. E. Vernede, B. Wolde, H. B. Kirk, F. Vernede, C. Vernede, H. S. Holder, Chairman and Honorary Secretary. Represented by proxy:—Messrs. H. D. Deane and Chas. Brander.

Read notice calling the Meeting.

Proceedings of last meeting were read and confirmed.

The Chairman said:—

GENTLEMEN,—There has been little accomplished during the last quarter.

The Mundakayam Telegraph office is at last in existence; but I regret to say the office at Kanjirapally has been closed.

If, however, as we hope, the new Taluk offices are re-built at Kanjirapally, instead of at Ponkunnam, doubtless the Telegraph office will be re-installed.

You will recollect that at the first meeting of this Association in March, 1906, the matter of the jurisdiction of the Cardamom Hills' Magistrate was discussed.

There appeared to be some doubt as to the limit of the jurisdiction.

The attention of the Cardamom Hills' Magistrate was drawn to this matter, and Government was approached and asked to define the boundary.

The subject was afterwards alluded to by our delegate at the Sri Mulam Popular Assembly of 1906, and I have since several times reminded Government of the matter. The last letter I had on the subject was dated the 23rd July, 1907, when the matter was still "pending consideration by Government."

It seems strange that for over eighteen months the local Magistracy should have remained, and still are, in the dark as to the extent of country over which they have or have not jurisdiction.

It is obviously a matter in which no doubt should ever have been possible, but the question having arisen, it is more than surprising that it has not been more promptly dealt with.

The United Planters' Association met at Bangalore in August, and was well attended, eleven Association being represented.

You will have already seen by accounts published in the press that your interests were ably cared for.

I will now ask our delegate to give us his report.

U. P. A. Delegate's Report.

Mr. J. A. Richardson said:—

GENTLEMEN,—My report on the United Planters' Association Meeting is a very short one, as there was very little of interest to us discussed this year.

I tried to get some information on thumb nail pruning of Pará Rubber, but no one could give me any. On the tapping of Ceará Rubber, however, there was some discussion. The general opinion seems to be that Ceará is very hard to tap, without killing or permanently injuring the trees. Mr. Lambert, of Coorg, said Ceará had been successfully tapped in Coorg, and that he did not know of any trees having died. This success seems to be due to the fact that the outer bark was only removed over the actual tapping surface, and he strongly recommended the V. shaped tapping.

Mr. Abbott, of Wynaad, on the other hand, had a great many deaths amongst his trees from tapping, but in his case he removed all the outer bark and then thatched the trees as was done in cinchona, but the bark did not renew and the trees died. You will find the discussion fully reported in the book of Proceedings, which will be out shortly.

Mr. Lamb, of S. Mysore, asked if reliable *Castilloa* Rubber Seed could be had in India. I told him I had seen some nice nurseries at Eldorado from the first crop of seed, and that I thought seed would be procurable there next year. He asked what jāt it was, but I was unable to give him any information as to this and referred him to Eldorado Estate.

Scientific Officer Scheme.—There was a long discussion on this matter, and a certain amount of money promised towards the scheme, amounting in all to Rs.2,069 a year, for 5 years. Neither this Association nor the C. T. P. A. promised support, as we have an alternative scheme of our own which we intend bringing up at the coming Sri Mulam. There was a good deal of informal discussion as to the necessary qualification of the Scientific Officer, and several suggestions were made, which might be useful to our Sri Mullam Delegate in dealing with the matter when he brings it up. It was thought he must have a knowledge of Agricultural Chemistry, Mycology, Botany and Entomology, which is rather a big order. I notice from the reply of the Madras Government that they too seem to be at a loss as to what the qualifications of the Scientific Officer must be. I think in the first place he must have a thorough knowledge of Agricultural Chemistry, and be willing to take up the other subjects in conjunction with his work. With a view to this, I think, we want to get a young man, who has just passed out of some Agricultural College, as during his training as an Agricultural Chemist he will have been more or less in touch with the other subjects, and will not find it so hard to take them up as an older man who has probably made a speciality of one particular subject.

Fertilizers.—With regard to these, the following resolution was passed:—

"That this Association is glad to notice that yearly more firms are giving guaranteed analyses of manures, and again urges Planters to give support to the firms doing so.

In this connection, I pointed out that Cochin was our nearest port and most convenient market for purchasing manures, and asked if any firm there was prepared to guarantee analysis. Dr. Lehmann said he thought Messrs. Hollinghurst and Co. were prepared to do so.

Labour Recruiting and Emigration.—There was a good deal of discussion on this, but I need not go into this, as the Honorary Secretary has some later facts and correspondence to put before you, which is the outcome of the resolution passed at the U. P. A. Meeting.

Planters' Labour Law.—This was discussed at great length, principally by the Nilgiri and Wynad delegates, which Associations had the Act put in force in their Districts. They have agreed to go on with it meantime, and press Government to make the amendments asked for some time ago. You will find this fully reported in the book of Proceedings.

The only other matter which really interests us is the resolution brought up by the Peermade Association, with reference to the U. P. A. subscriptions being raised on an acreage basis. As you are no doubt aware, the U. P. A. lost the whole of their reserve fund, Rs.17,428-2-7, through the failure of Messrs. Arbuthnot and Co., and are very short of funds. It was only with the help of a balance of Rs.788-2-0 carried forward from last year that they are able to meet the current year's expenditure. According to the acreage returns this year it would require a cess of 8 pies per acre to cover the working expenses of the U. P. A. S. I., and I don't think this would be a great burden to us. From the statement you have before you, you will see that there are only two Associations that are very far below the required amount, and I think if one or two districts give them a lead they will fall into line. It is absolutely necessary that some such scheme be put in force next year, and I trust, gentlemen, you will give it your support. There was no direct opposition to it this year, but as the acreage figures were not before the District Associations, they were unable to instruct their delegates on the matter. The resolution I brought up on behalf of the C. T. P. Association was as follows:—

"That the subscriptions to the U. P. A. S. I. shall, in future, be raised on an acreage basis as being a more businesslike and satisfactory arrangement than the present method of collection."

After discussing the matter in Committee it was obvious that it could not be carried through till District Associations had the necessary acreage figures before them, so I withdrew it, and proposed the following resolution in its place as a temporary measure:—

"Considering the straitened circumstances we find ourselves in owing to the loss of our reserve fund through the failure of Messrs. Arbutnot and Co., we recommend that a very special appeal be made by District Associations to every planter in South India and Home proprietors, urging them to support their District Associations, and thus help to swell the funds of the U. P. A. S. I., and increase its influence".

This is what I would ask you to do, gentlemen, and to meet the occasion agree to raise our subscription to Rs.228 next year. Our acreage will by that time have increased considerably, which will reduce the Cess in proportion, and if Mundakayam is going to be the success it promises to be I don't think it wants a second thought. District Associations are asked to send in at least half of the present year's subscription as soon as possible to meet current expenditure. This, I think, covers all that was of interest to us at this year's meeting.

Acreage Statements.

District.	1897	1907	In-crease.	De-crease.	Present Sub- scription.	Necessary new Sub- scription.
Wynaad	13,092	11,400	...	1,692	300	475
Nilgiris	31,584	10,800	...	20,784	400	450
Coorg	11,560	13,000	1,440	...	200	541
N. Mysore	12,241	10,000	...	2,241	400	416
S. Do.	17,512	6,060	...	11,452	400	252
Kanan Devan	4,914	16,053	11,139	...	520	668
Shevaroys	2,817	4,500	1,683	...	150	187
Central Travancore	6,586	7,563	977	...	350	315
Mundakayam	...	5,492	5,492	...	100	228
Cardamom Hills	...	...	...	...	50	...
Anamallais	...	5,460	5,460	...	100	226
Total	100,306	90,328	26191	36169	2,970	3,758

Mr. Kirk proposed a vote of thanks to Mr. Richardson for his full and interesting report.—*Carried Unanimously.*

Correspondence.—Read letter from the Vanjipusha Chief, dated the 5th August, 1907. In reply to resolution passed at last meeting, it will be seen he refers members to his "Manager."

Resolved that a copy of the Chief's letter be forwarded to the "Manager" of the Vanjipusha Madom, and that he be requested to give attention to matters under reference.

(It will be recollected that the Chief was addressed, as no satisfaction could be obtained from the Manager.)

Read letter from the Chief Secretary, No. S. R. 4679, dated the 16th September, in regard to notification published in the *Gazette*, with reference to Europeans applying for permission in every instance of acquiring land in Travancore

Resolved that the Honorary Secretary forward a copy of the reply to the British Resident and remind him of certain points in this Association's letter, dated the 17th August, on which enlightenment was sought and further again enquire of the Dewan, whether the publication of a notice in the *Gazette* constitutes a law.

(Other correspondence had already been circulated.)

Sri Mulam Popular Assembly.—The Honorary Secretary informed the meeting that Mr. H. M. Knight had been elected delegate, and had consented to represent this Association at the forthcoming meeting.

The subjects he had been asked to allude to were.—

The Kutikal Road.—To request Government to fulfil the promise given at the Sri Mulam Popular Assembly in 1905, in regard to the construction of the road to Kutikal.

Ernakulam-Quilon Railway.—To advocate the survey of a line of railway from Ernakulam to Quilon, touching at the most important centres.

Scientific Officer.—To point out the urgent necessity of such an officer in the State.

To present a special memorandum to the Dewan, suggesting the reconstruction of the Taluk buildings at Kanjirapally instead of at Ponkunnam, and the erection of a second class travellers bungalow, at Kanjirapally.

Resolution by Mr. Wolde.—

1. That members of this Association shall send a list of their contractors with their legal addresses, to the Honorary Secretary, and that this list be circulated among members.

That no members shall employ any contractor whose name is on these lists, without the written consent of the Manager of Estate on which the contractor is working, and that agreements when completed be endorsed and handed back.

2. That members of this Association shall send in a list of all defaulting contractors, with any remarks germane to their cases, and that this list when received be amalgamated, and issued privately and confidentially among members.

Seconded by Mr. H. B. Kirk, and carried.

Resolution by Mr. Wolde.—That the Honorary Secretary do write to the Chief Engineer, Trevandrum, and request him to kindly notify to his subordinate officers that in case of any gentleman wishing to occupy the camp sheds at Parlia (Pulianoor C. S.) or Kanjirapally (for Ponkunnam), whilst they are on duty there, they shall allow him to occupy one room; and to enquire (if the exigencies of the service do not permit of this,) whether it is possible for him to recommend that a 2nd class bungalow be erected at these places for the convenience of gentlemen attending Court.

Seconded by Mr. H. B. Kirk, and carried.

Resolution by Mr. Wolde.—That the Honorary Secretary do write to the Chief Engineer, enquiring if it is a fact that Rs.60,000 remained unspent of the P. W. D. Budget of 1,082 Kottayam Division and to ask if so, if the amount might not well have been expended on the following roads and bridges.

Ettumanore-Pulianoor, 9 miles of road in very indifferent order.

Pulianoor-Lalem, 1½ miles of road almost impassable.

Lalem-Erattupetta road.—All small bridges in need of repair. At second mile post from Lalem a deep river exists unbridged impassable in flood for carts (place called Edappalley) and at mile 4.4 (Aravakulam) broken bridge over deep river impassable after showers.

Meenaehil river at Erattupetta Arivatooor. No Jangar though it is believed once was sanctioned in the Budget.

Arivatooor-Kanjirapally Road mostly in very bad order, especially at Thedanaad, and at 2nd mile post where the road crosses Chitar river, the bridge has been falling to pieces for the last two years. All smaller bridges are in need of repair.

Seconded by Mr. J. A. Richardson, and carried.

Resolved that the Honorary Secretary do at the same time enquire when the second class travellers' bungalow at Mundakayam is to be made first class.

Resolution by Mr. H. D. Deane :—

That His Highness' Government be approached with a view to obtaining special terms and facilities in regard to the removal of lopplings of Teak trees growing in Rubber Estates other than Sirkar land.

Seconded by Mr. A. E. Vernede, and carried.

Resolution by Mr. H. D. Deane :—

That the District Magistrate be asked to use his influence and local knowledge in urging the Dewan as a tentative measure to fix the boundaries of the Cardamom Hills Magistrate's jurisdiction on the western side as follows :—

1. North of the Sirkar road along the ridge of Hills from the Kutikal path turn off all the Eastern slopes to the source of the Pulaga Aur river.

2. South of the Sirkar road all lands East of the Rani Reserve boundary line; or failing these boundaries to at any rate name all Estates within this area in the hands of Europeans, as being for the present within the Cardamom Hill Jurisdiction, and that the same will be published in the *Gazette* at an early date to avoid unnecessary expence in litigation.

Seconded by Mr. H. B. Kirk, and carried.

(*The Chairman remarked that as far as he knew there was no question as to the limit of Jurisdiction to the South East of Sirkar road, but raised no objection to this resolution being put through in full.*)

Resolution by Mr. H. B. Kirk :—

That Government be requested to give orders empowering the Kanjirapally Magistrate to hold Court at Mundakayam once a month.

Seconded by Mr. R. Harley, and carried.

Papers laid on the table—U. P. A. S. I. Circulars, the *Planters' Chronicle*, etc. With a vote of thanks to the Chair the meeting terminated.

(Sd.) H. S. HOLDRE,

Chairman and Honorary Secretary,

The Wynaad Planters' Association

Meeting of 13th November, 1907, at Meppadi Club

PRESENT.—Messrs. C. E. Abbott, H. Atzenwiler, B. M. Behr, E. A. Hughes, D. Mackenzie, W. Mackinlay, B. Malcolm, D. H. McLeod, S. H. Powell, Jnr., A. Trollope and H. Waddington, Honorary Secretary.

In the Chair.—Mr. W. Mackinlay.

Proceedings of the last Meeting were confirmed.

1306.—*Non-Service of Warrants*.—Read letter from District Magistrate, Coimbatore, with reference to non-service of warrants in that District. Read letter from Honorary Secretary to the District Magistrate, Malabar, as to non-despatch of warrant from Vayitri Court, his reply and letter from Resident, Mysore. Recorded.

1807.—*Sanitation*.—Mr. Hughes called attention to the sale of fish, unfit for human consumption, to his coolies, from effects of which one death occurred. Honorary Secretary was asked to bring the matter to notice of proper authorities.

1808.—*Plague Passes*.—Read letter from Honorary Secretary to the Collector of Malabar, and his reply, stating that in the case of estates which have no resident superintendent writers will be allowed to observe coolies and sign their passports daily, subject to the condition that the passports are countersigned by the superintendent at the end of the observation period, the superintendents being held responsible for the proper working of the system.

Recorded with satisfaction.

1809.—*Labour Recruiting & Emigration*.—Read Honorary Secretary's letters to Postmaster-General and Chief Secretary of Government, Madras. Approved. Read reply from Postmaster-General, stating that orders have been issued to all Post Offices in the Madras circle not to exhibit in future advertisements showing attractions for labourers in the Federated Malay States.

Noted with satisfaction.

1310.—*Roads*.—Mr. Abbott reported that the District Board have allotted s.5,000 for the upkeep of Road No. 85 B, and that it is to be kept up as a cart road.

Recorded with great satisfaction.

Referring to the note in proceedings of meeting held during October. Mr. Abbott reported that Rs.15,000 has been allotted to Road No. 38.

1311.—*Attesting Contracts, Act I. of 1903*.—Resolved that the Local Government be asked to issue orders that all Magistrates and persons authorised to attest contracts shall keep a record of contracts attested by them.

1312.—*Papers on the Table*.—U. P. A. S. I. Circulars Nos. 60 to 63.

I. T. A. Circular No. 19.

Tea export statement, September.

A vote of thanks to the Chair terminated the proceedings.

(Signed) W. MACKINLAY, *Chairman*.

(„) H. WADDINGTON, *Hon. Secretary*.

The Wynaad Planters' Association.

Special Meeting held on 13th November, 1907, at Meppadi Club.

PRESENT.—Messrs. C. E. Abbott, B. M. Behr, E. A. Hughes, D. Mackenzie, W. Mackinlay, B. Malcolm, D. H. McLeod, S. H. Powell, Jnr., A. Trollope, H. Waddington, Honorary Secretary, and by proxy Mr. A. West.

In the Chair.—Mr. W. Mackinlay.

Read letter from Mr. A. West. Recorded.

Read Correspondence with reference to proposed amendments to Act I. of 1903.

1303.—*Resolved*:

The Association records its thanks to the Government of Madras for giving them the opportunity of considering the proposed amendments to Sections 33 and 35 of Act I. of 1903, contained in letter from Acting Chief Secretary, Government of Madras, dated 11th October, 1907.

They would respectfully point out that these amendments were not asked for, and would increase the disadvantages which planters at present experience in obtaining labour.

The Association ask Government to postpone, for the present, the whole question of amending the Act.

The amendment mentioned, while protecting the Maistry who fails in fulfilment of his contract from no fault, encourages the fraudulent Maistry by providing an easy means of escape from his obligation.

With regard to the intention foreshadowed in the Chief Secretary's letter of 10th August, to omit Maistries and Sub-maistries entirely from Sections 33 and 35, the Association is of the opinion that this would render the Act useless.

1804.—The Honorary Secretary was instructed to ascertain if the Nilgiri Association and Mr. Hodgson would join in a request, asking the members of Government interested in the matter of this Act to meet representatives to informally discuss the matter. . . .

1805.—The Honorary Secretary was instructed to ascertain if the United Planters' Association, and/or the Nilgiri Planters' Association would join in payment of a Barrister for advice as to Act I. of 1903, when found advisable to have such.

A vote of thanks to the Chair terminated the proceedings.

(Signed) W. MACKINLAY—*Chairman.*

(„) H. WADDINGTON—*Honorary Secretary.*

Shevaroy Planters' Association.

Proceedings of Committee Meetings held on Monday, October 17th, and Monday, November 11th, 1907 at the Victoria Rooms, Yercaud.

PRESENT, ON MONDAY, OCTOBER 17TH :—Messrs. G. Turner, C. Dickens, C. Rahm, C. G. Lechler, F. D. H. Short, J. C. Large and B. Cayley, Honorary Secretary.

1. *Resolved*.—That the Honorary Secretary write to the Secretary, U. P. A. S. I., to point out that, as Reuter's Agency seem disinclined to meet our views with regard to quoting East India B. coffee, each District Association be invited to join in paying for quotations from Reuter, and if that be not feasible, that Messrs. J. C. Saunderson be invited to quote rates. In the opinion of this association a bi-weekly quotation will be sufficient, and the total cost for the same should not exceed Rs.200, meanwhile we suggest that the Secretary, U. P. A. S. I. write to Reuter's Agency, Madras, and enquire their rates.

2. *Resolved*.—That the Honorary Secretary address the Superintendent of Police, Salem, quoting Section 10 of the Coffee Stealing Prevention Act VIII., of 1878, and asking whether he would be good enough to prosecute all those who carry coffee by different roads to those by which they are directed to travel, when the explicit direction of route is mentioned on the coffee passes.

3. Proposed by Mr. G. Turner, seconded by Mr. C. Rahm : “ That members be invited to mention the name of the Chetty to whom they sell coffee when they send in their quotations of prices obtained to the Honorary Secretary.” Carried by 5—2.

PRESENT ON MONDAY, NOVEMBER 11TH, 1907 :—Messrs. F. D. Short, C. Dickens, C. G. Lechler, J. C. Large and B. Cayley, Honorary Secretary.

1. *Resolved*.—That the Honorary Secretary be requested to address the Collector and District Magistrate, Salem, with reference to punishment on conviction in cases of coffee theft, and to ask him whether a punishment of fine as well as imprisonment cannot be inflicted, and if half the fine cannot be given to the Police concerned as is done in Abkari cases.

2. *Resolved*.—That the minute drawn up by the Honorary Secretary *re* Police arrangements for the crop season 1907-08 be printed and circulated with the proceedings of the two Committee Meetings of October 17th and November 11th, 1907.

3. *Resolved*.—That the Honorary Secretary be requested to address the Secretary, U. P. A. S. I., pointing out the great advantage that would accrue if all planting districts were to adopt a system of compulsory passes for the removal of coffee, printed by Government and issued by the Tahsildar or nearest Magistrate. Section X. of Act VIII of 1878 does not prescribe any particular form, which is at present very varied. The Shevaroy Planters' Association desire to obtain the views of other associations as to the practicality of some such scheme as above suggested.

(Signed) BERNARD CAYLEY,

Chairman and Honorary Secretary.

INDIAN TEA ASSOCIATION, Calcutta.

Extracts from Abstract of the Proceedings of a Meeting of the General Committee, held on the 12th November, 1907.

Correspondence with the Indian Tea Association, (London).—Letters of 18th and 25th October, from the Secretary to the Indian Tea Association, London, which had been circulated, were brought up for final consideration and disposal.

(b) *Russian Import Duty on Tea.*—Sir James Buckingham writes that the Ceylon and Indian Tea Associations in London and the Tea Buyers' Association have addressed the Secretary of State for Foreign Affairs, urging that Government should make a representation to the Russian Administration on the serious handicap imposed on British-grown teas by the heavy duty they have to pay on entering Russia as compared with that levied on teas of non-British origin.

(c) *Monthly Figures of Manufactured Tea.*—The following resolution was passed by the London Committee at their meeting on 7th October:—

"It was agreed that the Secretary should interview the Chief Agency Houses and Proprietors, with a view to asking for a monthly return of the amount of tea made. The return to be given, in confidence, to the Secretary, who would circulate to members the aggregate received only.

"The Calcutta Association will be asked to obtain a similar statement from Companies and Estates not represented in London. It is hoped, therefore, that a reliable return of the Northern India outturn will be, monthly, available at this office."

Sir James Buckingham had interviewed most of the tea agency houses in London, and these were agreeable to furnish him with the figures desired. A list of those who complied with his request would be sent out to Calcutta, and he would ask the General Committee to obtain for him the figures relating to those gardens worked entirely from Calcutta, returns for which he cannot get in London.

The General Committee were of opinion that there were difficulties in the way of Sir James Buckingham's suggestion. The figures of practically all European concerns could perhaps be obtained from the London agents, but it would be, they thought, impossible to get accurate figures from native gardens here, and this, they feared, would greatly detract from the value of the information.

(d) *Assistant Scientific Officer.*—Before Dr. Mann went Home in June last, it was arranged that he should co-operate with Sir James Buckingham in obtaining an Assistant Officer for the Scientific Department. Dr. G. D. Hope has now been appointed, and is expected to arrive here in the early part of the year. Dr. Hope has the B. Sc. Degree of Liverpool and Victoria Universities, and the Ph. D. Degree of Hall- University. Latterly he has been Assistant Lecturer in Organic Chemistry at Liverpool University.

Photographs of Tea.—Reference was last made to this matter in the Proceedings of the Meeting of 9th July. The British Consul at Chicago had, in a letter addressed to the Government of Eastern Bengal and Assam, asked to be supplied with objects illustrative of British industries to make a permanent reference collection in connection with the Municipal Museum at Chicago, and Government had referred to the Tea Cess Committee to know whether they would be prepared to supply a set of photographs, illustrating the cultivation and manufacture of tea, to be forwarded to Chicago. The Cess Committee had, in turn, asked the General Committee if they would consent to a selection being made for this purpose from a set of photographs which was procured for the St. Louis Exhibition.

Some considerable correspondence has taken place; . . . from this it appeared that a set of photographs taken by Mr. Fritz Kapp, Photographer, Dacca, would be obtainable at a cost of Rs 50 for twenty-four views. The original cost of the views belonging to the Association was Rs.20 each, and after discussion the General Committee decided to recommend to the Tea Cess Committee the purchase of a set of Mr. Kapp's photographs.

PLANTERS' ASSOCIATION OF CEYLON.

A general meeting of the Ceylon Planters' Association was held on November 1st, at the Ferguson Memorial Hall, Kandy. Mr. J. R. Martin, Chairman, presided.

The Chairman's Review

Inter alia, the Chairman, who, on rising, was received with cheers, said: The position of your various industries is highly satisfactory. Tea will perhaps give a record crop, and in spite of that the prices of our leaf place the industry in a satisfactory condition—perhaps the most satisfactory annual outlook it has yet enjoyed. A study of the figures points to the fact that consumption has probably caught up production, and that these prices—more or less—may be looked for for some time to come and that we have perhaps said good-bye to the hard times which planters have endured with such patience and fortitude. Cocoanuts continue exceedingly satisfactory. Cocoa is in the highly satisfactory position of yielding the largest crop on record by several thousands of hundredweights and commanding prices which take us back to the golden days of the inauguration of the enterprise. Here again an examination of the figures points to the fact that these good prices may be looked for for some time to come, and the increased export is the most eloquent testimony that can be given to the highly satisfactory agricultural position of the product, and proves that in the struggle with disease, which at one time was looming seriously, cocoa has emerged victorious. (Hear, hear.) Turning to rubber—the product which now gets so much attention—our position in Ceylon is thoroughly sound. The growth of our trees is good; our estates, generally speaking, are in good order. There is little or no disease, and the yield, so far as we have gone, fully bears out the figures on which we originally based our estimates. There has recently been a fall in prices. Where buyers live from hand to mouth, as is the case in the rubber market, a small increase in supply is bound to cause a fall in prices. There has been an increase in the production of rubber, but in the opinion of those best fitted to judge the ratio of that increase will not be continued, and, as far as we can see, there is reason to expect good prices for rubber for some years to come. But, gentlemen, now is the time, when prices and crops are good, to fully equip your estates and put them in as sound a position as regards labour as possible, so that when the struggle comes, as sooner or later it will come, Ceylon may be in a position to produce rubber at a rate that will out-distance any other country or even any attempts at artificial substitutes. (Cheers.) You see, I have seen the giant China tea fall before the attacks of the Ceylon planter. I have no doubt that when we have to enter into final grips with wild rubber, we shall emerge from the contest victorious. It is this knowledge, that there is in Ceylon a latent force that has the power to produce a profit, a handsome profit, when other countries might fail to make any profit at all; it is this fact that is causing the keenest business men to turn to our island as the safest and soundest field for investment. The work of the Thirty Committee has continued on previous lines. I cannot say that I am impressed with the campaign on the continent of Europe. Mr. Renton has worked enthusiastically and hard, but in my opinion, and I am simply giving my personal opinion, the field is too great and the resources at his disposal are too small for him to make any appreciable result. On the other hand, although in America we have experienced a temporary setback, it may, I think, be accounted for by the present prices. I look upon the progress as highly satisfactory. I have heard in ways quite unconnected with this Association, and from men who did not know I had anything to do with it, the information that tea is now to be found in parts of America where it was not known but a very few years ago. We will have in hand at the end of the next year sufficient money to carry on the campaign in a modified form up to the end of 1909. It is for you, gentlemen, to say whether we shall continue our Commissioner's efforts on the continent of Europe, or devote our entire efforts to prosecute the business opening that apparently awaits us in America,

The tea cess is to be abolished at the end of next year, and perhaps, as far as the tea cess itself is concerned, it may be laid aside like a trusted weapon which has served its owner well and has become perhaps rather obsolete, but I should be sorry to see the principle of cess abandoned. It may serve us in many another way, and I think perhaps labour is one of them. . . . The supply of Tamil coolies to this island is declining. The figures in the recent number of the "Government Gazette" show the number of arrivals in the island as 18,615, and departures 20,098, as against 42,685 arrivals and 22,826 departures average for the corresponding quarters of the last nine years. That means that the average for the quarter ending the 30th September last was 24,000 behind the average for the last nine years as regards the influx of Tamil coolies, and only 2,000 behind as regards the departures of coolies from the island. That, gentlemen, is a matter for very serious consideration. We know that other countries are offering inducements greater than we do, and are bidding for our labour in the labour markets we have hitherto looked upon as our own. I attribute this falling off in the supply of cool labour to the coolies being offered higher pay and better prospects elsewhere. It is for us to try and hammer out some system by which we can enter into competition with foreign countries without entering into competition between ourselves. The question is very largely a low-country one. In the low-country many thousands of acres have been opened in rubber, and the labour available for that acreage is insufficient. It is quite a common thing to see Sinhalese and Tamils at work in the same field. The Sinhalese man receives 50 cents, and the Tamil receives 33 or 35 cents a day. The Tamil is by far the better worker of the two and the more reliable man. How long, gentlemen, is the Tamil going to stand it; how long is the low-country planter going to stand it? Hitherto he has behaved with the utmost loyalty to his up-country brother, in not raising the rates of coolies but, it is obviously anything but good business for him, and it would be better for him to pay the Tamil 50 cents a day and bring him up to the level of the Sinhalese. He would then have obtained a reliable labour force, and his work would still be more cheaply done. That is the position that faces us. That is the position we must continue to experience unless we find some method of counteracting this war of rates that is about to take place. To-day at the Committee I advanced a suggestion; I put it merely as a suggestion, merely as a step towards making Ceylon as popular as it was before with coolies. It is that coolies should be brought into Ceylon free and brought to the estate free. This, I think, may fairly be met by a small cess on all planting produce. We may want some small alteration in the Labour Ordinance. That would probably not be very hard to get, but I do not think there is any great difficulty in hammering out a system by which a cooly can take his tin ticket from Trichinopoly, and be landed on the estate free of charge. I put the suggestion before the Committee this morning. The Committee sent it to the labour special Committee, who will consider it at once, and will report to the General Committee in January. The Committee will report not only on this but other subjects, if they think fit, which will be of advantage to our labour force, and if the General Committee approve of their recommendations, I hope to see this idea put through by our next meeting in February. . . . I think the time has now arrived when we might again bring forward the proposal which was once before brought forward, that of having an additional planting member to represent the low-country, and when I say a planting member I mean a member who would represent all races who are planters of any description of product. There has been a draft Ordinance submitted to us for the protection of rubber. So far as I have been able to look into it, it is a very excellent Ordinance and should meet with our support. I may say that it follows the lines very closely of the Cocoa Ordinance, and we are reaping the benefit of the struggle which the cocoa planters made for that produce, which resulted in the very satisfactory Ordinance being passed which now exists, and which has proved that special legislation can be given for the protection of any produce without interfering with the rights of any honest man.

RUBBER.

Rubber in Queensland.

In the course of his report on the Kamerunga State Nursery, Cairns, Queensland, for the season 1906-07, Mr. Howard Newport, Instructor in Tropical Agriculture, says :—

The species of rubber-producing plants of the better varieties now under cultivation are :—

- The Rubber (*Hevea brasiliensis*.)
- Central American Rubber (*Castilloa elastica*.)
- Rambong or Assam (*Ficus elastica*.)
- Ceará Rubber (*Manihot glaziovii*.)
- African Rubber (*Funtumia elastica*.)
- Manicoba Rubber (*Manihot* sp.)
- New Guinea Rubber (*Ficus rigo*.)

Other small plants, more or less rubber-producing, might be mentioned, but require considerable further experiment before it can be shown that they are likely to be of use to the country. Those above mentioned have attained maturity. The Ceará Rubber has only been spasmodically tapped. While young, *i.e.*, under ten years or so—experiments have been unsatisfactory, but as they increase in years the flow of latex, or milky sap-like exudation that contains the rubber, seems to increase, and to flow for a longer period after the bark is cut. On the Rambong trees experiments have indicated that, with cultivation, a size may be obtained rendering it both possible and worth while to commence tapping operations at nine years or so of age, and possible earlier, in this country.

The large trees here are some sixteen years of age, and will give as much as 5lb. of dry rubber per annum. The *Castilloa* rubbers are now over six years of age, and are rubber-yielding, but want of time and staff has prevented any regular experiments in tapping and treating the latex of these. It is hoped that this season the staff will be sufficiently increased to admit of the working of all these rubbers, the more especially as it is amply shown that they will thrive, live, and attain a tappable size at an early age under the climatic and soil conditions obtaining in tropical Queensland. This work, however, to be properly done, requires the undivided attention of an officer at the same time of day—the morning by preference—regularly for a considerable period. Any discontinuance might create a break in the work that would involve starting afresh; nor with such work, in which exact and careful record must be kept, can any casual hand or labourer be employed.

As indicated last year, this season, as far as it was possible, tapping operations were systematically carried out on the small plantations of Pará rubber-trees which are now eight years old. The growth of these trees, owing to the indifferent soil of the nursery, and coupled with the fact that they experienced seasons of drought that was do detrimental to agriculture in the State generally, is by no means remarkable, and indeed, such as could not readily be exceeded by private growers. For these reasons I am of opinion that equally good results could be obtained from trees at least one year younger in selected localities and on better soil.

These tapping experiments were carried out by myself and the office assistant under my direction, and were commenced about the middle of February; but, by the middle of May, owing to pressure of office work and the necessity of my being away on lecturing tours, inspecting, or attending shows, etc., it had to be discontinued.

These first tapping operations were carried out under certain difficulties also, due to the absence of many of the requisite appliances, interruptions by visitors, etc., but, . . . were, on the whole very satisfactory. . . . Out of ten trees tapped seven different methods were tried. This, coupled with the fact that the biscuit of each separate tapping of each separate tree for purposes of experiment had to be separately coagulated, matured, marked, and labelled,

prevented any possibility of recording time, and, therefore cost of collecting. The first tappings, moreover, seldom produce as large a flow as of latex as later ones, owing to the absence of wound response in the early cuttings. Had it been possible to continue the experiment until at least 90 or 100 cuts per tree had been made, the average would have been noticeably higher. Tapping was commenced on the 19th February, when three trees were tapped—No. 2, by the double spiral method; No. 4, by the herring-bone (eight arms); and No. 24, by one V-shaped cut, which was extended to 6 Vs. As these were extended other trees were tapped—*viz.*: No. 30, one V, afterwards increased to five, on the 20th February; No. 43, (single spiral), on the 26th February; No. 52, (double spiral), on the 26th February; No. 45, (herring-bone, eight arms), on the 26th February, No. 53, (herring-bone, seven arms), 26th February; No. 61, (single spiral) 9th April; and last of all, No. 1, (on the 19th April), which was tapped by two half-herring-bones with five rows on each.

The best results were obtained from No. 24,—*viz.*, 20½ oz. dry rubber—which would have been much more if five V cuts instead of one had been made at first. The next was No. 2, with 19½ oz., then No. 45, with 15½ oz., No. 30, with 13 oz., No. 53 with 12½ oz., and No. 4, 11½ oz. The smallest quantity obtained was 5 oz., from No. 61; this tree, however was not tapped until the 19th of April. The total amount of rubber obtained was 71lb. 8½ oz., for an average of 41½ tappings or cuts per tree, representing—at six days per week—about seven weeks' continuous tapping, or since the usual time to continue tapping trees is three months, about one half-season's work: for one whole season at the same rate 15lb of rubber would, therefore, have been produced from the ten trees, or 300lb. per acre of 200 trees, representing a return (at 5s. per lb.) of £75 per acre in the eighth year.

The best method of tapping would seem to be the double spiral—*i.e.*, two cuts running parallel round the tree from some 5 or 6 feet up the stem to the base—for, although No. 24 with five Vs. gave the best results No. 2 double spiral, which is not such a large tree, gave, with nearly as good a total, 50 per cent. less scrap. The herring-bone method comes next in order of advantage. Other methods have yet to be proved, but it would seem difficult to improve on the double spiral, for, besides being easier of operation, drip-tins can be used, which, placed at the top, furnishes a small but constant stream of water, preventing coagulation of the latex on the cut in the form of scrap rubber that takes a long time to collect, but which must be removed to enable subsequent cutting to be done.

During these experiments it has been noticed that in dry weather the latex coagulates in the cut, forming this scrap rubber very quickly, both preventing the full flow and retarding subsequent tapping, especially if the tapping is done late in the morning. In dry weather also cuts higher up the stem give less latex than those low down, the flow from which latter was apparently not much affected by the weather or time of day.

Some of the trees started with a good flow, which went off, though not stopping entirely, after ten or twelve cuttings, but increased again subsequently. This was noticeably so with Nos. 4, 24, 30, 43, and 52. The rest kept a more even flow, and all were flowing far better at the time the experiments had to be discontinued than at any previous time.

The rubber from the various trees differed a great deal in appearance, some being very pale (as No. 1), some dark (No. 30), and some of a medium amber colour (Nos. 2 and 24); some also seemed more sticky than that from other trees, and took longer to coagulate. The latices also differed at first, that from trees Nos. 2 and 43 being of a creamy colour the rest being pure white, but after a week or two the colour of the latex was noticeably more uniform.

In coagulating the latex several methods were tried. Natural coagulation in pans was found to take one to three days, and, in wet weather, to encourage mould and mildew; if water was mixed with the latex it took even longer. When acetic acid was added, coagulation took place in four or five,

to ten hours, particularly if the atmosphere was dry. Coagulation by means of churning took place in fifteen to twenty minutes with acid added, and seemed thorough and in every way satisfactory. The churn used was a small glass one, holding about one quart of latex and water. The drying of the resulting biscuits was troublesome until a small set of ordinary "wringer" rollers was obtained, after being washed and passed through which, the biscuits were readily matured in wire trays in a dark place and dry, or even smoky atmosphere. Some good samples of clear, clean, amber-coloured biscuit rubber were obtained. There is not enough yet to test a market with, and it is being used for exhibitions and illustrations. During the coming season it is hoped this useful work may be materially extended, and it is confidently anticipated even better results will be obtained.

Some new apparatus has been obtained, including tapping-knives, drip-tins, larger coagulating pans, etc.

On the whole, and under the circumstances, the Pará rubber-trees have yielded very well indeed, and the experiments indicate that in rubber culture may be found an industry suited at the same time to our climate, soils, and conditions of labour in tropical Queensland.

The demand for Pará rubber-trees and seed this season has quite exhausted the supply. Owing to windy weather experienced in January last a large proportion of the seed crop, was, unfortunately, lost by being blown off before mature. Of other varieties the following are available :—

Rambong or Assam Rubber (*Ficus elastica*), about 50 plants.

African Rubber (*Funtumia elastica*), about 60 plants.

Central American Rubber (*Castilloa elastica*), about 280 plants.

Manicoba Rubber (*Manihot* sp.), about 20 plants.

Ceará Rubber (*Manihot glaziovii*), seed in quantity.

Experiments in Rubber Tapping at Henaratgoda.

By. J. C. WILLIS.

The following experiments are now being put in hand on the rubber plantations at Henaratgoda, under the supervision of the Director, Royal Botanic Gardens, and the Government Chemist.

1. To determine whether the caoutchouc is developed at the place where it is tapped from the tree. Trees are being ringed, and half-ringed, at distances of a foot, and all the milk removed, to determine whether new rubber is formed between the rings. Of course this experiment may not be conclusive, but should new rubber be formed between the rings, it will be so to some extent.

2. Trees tapped from below upwards, are tested against trees of same size tapped from above downwards, to determine whether the former method is worth the extra trouble.

3. Trees are being tapped by large *Vs*. at the base, for comparison with those fully tapped to 5 or 6 feet up.

4. The amount of latex, and the proportion of rubber in it, are being carefully determined for various systems of tapping and frequencies of tapping.

5. The rate of root-growth is being tested.

6. It is being determined whether the flow of latex cannot be increased by watering the tree one, two, three, or four days before tapping.

7. The exact difference between tapping to the left and tapping to the right is being tested, it being already known that a considerable difference exists.

Several other experiments are also being started. The tapping of the trees for these experiments will in general take place in the early mornings, and anyone wishing to see it may visit the garden by staying overnight at the Resthouse. It must be clearly understood that the figures showing results will not be open to inspection until published at the close of the experiments.

—*Tropical Agriculturist*.

TEA.

The China Tea Trade.

In the course of his report on the Foreign Trade of 'China for the year 1906, Sir Alexander Hosie, Acting Commercial Attaché to the British Legation at Peking, says :—As in the case of silk, the wet and cold spring of 1906 had an injurious effect in the tea districts of China. At Hankow the market opened late owing to the backward season and to instructions issued by the Tea Guild that no teas were to be placed on the market until the whole crop had actually arrived in the port. This action was taken in order to put a stop to disputes which have been of frequent occurrence between buyers and sellers consequent on false musters, and the new system has worked well. The supplies of Hankow and Kiukiang leaf were short. The choicest carefully prepared chops of Hankow teas realised higher prices than in 1905, and the quality of Ichang chops was excellent. The supplies at Foochow were in excess of the previous year, but Congou and Oolong were less. The latter, whose market is the United States, is said to be a vanishing quantity owing to the stringency of the American Customs Regulations in the matter of dust and colour of infusion. The export of Tea from Canton was 200,000 lbs. ahead of 1905, but the whole export was only 850,000lbs.

The total output of tea from China to Foreign countries in 1906, amounted to 187,217,067lbs., valued at 26,629,630 Haikuan taels (£4,382,793). In 1905 the export was 182,578,065lbs., of the value of 25,545,652 Haikuan taels (£3,827,450), so that there was to all appearances an increased export of 4,644,002 lbs. and an increased value in silver of 1,083,978 Haikuan taels and in gold of £555,343. In this any indication of a possible revival of the China tea trade? I think not. An examination of the export shows that, while black leaf increased by 514,993 lbs., it was nearly 13 per cent. under the average export of the previous five years, and that green tea decreased 4,693,733lbs as compared with 1905. On the other hand the increase in the export of brick and tablet tea was 9,890,267lbs., from 69,780,932lbs. in 1905 to 79,471,201lbs. in 1906. The export of dust fell off by 867,467 lbs. and amounted to only 34,933 lbs., an indication that it was nearly all required for the manufacture of brick tea. Russia is now China's best customer, taking the whole of the brick and tablet tea with the exception of what is conveyed to Kalgan for consumption in Mongolia, and 46,066,800lbs. of the whole leaf export of 107,710,033lbs. The consumption of China tea in the United States is steadily on the wane; although the customs return give an export direct to the United Kingdom of 11,636,000lbs. in 1906, the actual amount that went into consumption was only 5,671,121lbs., or about 2·1 per cent. of the whole quantity of tea consumed in the United Kingdom, as compared with 2·5 per cent. in 1905, and 4·3 per cent. in 1904.

In 1905, India, Ceylon and Java sent 4,906,800lbs. of tea, mostly dust, for blending with China teas, principally in the manufacture of brick and tablet tea; in 1906 they sent 8,767,200lbs. an increase of 3,860,400lbs., and if, as I imagine, this blend on export is classed as China tea the increase of 4,644,001lbs. on the whole export of tea from China is due almost entirely to this cause. In 1906, Hankow alone exported as much as 7,847,066lbs. of India, Ceylon and Java tea dust blended with brick and tablet tea: Kiukiang, which is another brick-tea manufacturing centre, imported 262,800 lbs. of Ceylon dust, but the customs returns of that port are silent as to the quantity exported. The Consular report for Foochow, the third brick-tea centre, makes no reference to import or export, and the customs returns for that port have not yet been issued.

There can be no doubt that good China tea is the best tea in the world from a hygienic point of view. It contains much less tannin than other teas, and is more suited for invalids and those who are not favoured with good digestions.

OFFICIAL PAPERS.**Rubber Land In Mysore.**

Proceedings of the Government of His Highness the Maharaja of Mysore, Forest, dated 30th October 1907.

READ—

Letter from Mr. L. P. Kent, received on the 16th September 1907, requesting that the Kelgane Udade Sandal reserve in the Chikmagalur Taluk, may be granted to him for coffee cultivation with the concessions originally proposed to be shown to him in 1898.

No. R 2719-21—Fts. 71-07-2, DATED BANGALORE, 30TH OCTOBER 1907.

ORDER THEREON :—The tract in question comprises Survey Nos. 50, 67 and 69 of Kelgane with an extent of 124 acres and 25 guntas, and was formed in 1889 into a sandal reserve by the Forest Department on the recommendation of Mr. Meiklejohn, the then Deputy Commissioner of the Kadur District, who, on an inspection of the spot, was impressed with the benefits likely to result from such a course. In September 1895 the tract was also constituted a State Forest under Government Notification No. 2574—Ft. 141, dated the 4th idem.

2. In 1898 Mr. Kent applied for the grant of the land in question to him at an upset price of Rs.60 per acre for coffee cultivation. Government sanctioned the sale of Survey Nos. 50 and 65 by public auction in . . . April 1898, and ordered that a careful enumeration of the sandal trees should be made and a mutchalika taken from the purchaser binding him not to interfere with any sandal trees that might already be growing on the lands or that might grow in future and with any existing rights of way over them. Survey No. 69, which was originally a gomal and on which the raiyats of Kumbarahalli, a hamlet attached to Kelgane, claimed a right of way, was also ordered to be restored as village gomal subject to its being otherwise disposed of thereafter, if deemed desirable. The lands were on that account disafforested. . . . Mr. Kent subsequently stated in his letter, dated 2nd June 1898 that he was not willing to pay more than Rs.40 per acre if only Survey Nos. 50 and 67 were given to him, as unless Survey No. 69 was granted along with them, they would by themselves form too small an estate. Government therefore directed that Survey No. 69 also might be given to him along with Survey Nos. 50 and 67, overruling the objection of the raiyats, who wanted it to be reserved as gomal. Later on, in October 1899, Mr. Kent again changed his mind and stated that the price of Rs.60 per acre which he had first offered was a ridiculously high rate and as the lands had been disafforested and classed as coffee kharab, offered to take up survey numbers 50 and 67 if put to auction with the usual reserve price of Rs.10 an acre. He also stated that he did not require Survey No. 69. The Deputy Commissioner without further specific instructions from Government upon the revised proposals of Mr. Kent, sold the lands, Survey Nos. 50 and 67 by auction, when Mr. Kent was the only bidder, and his bid was Rs.760 for the lands.

3. In view of the changed attitude of Mr. Kent, and the fact that the price realized did not even cover the amount spent by Government on the sandal plantation, Government declined to confirm the sale, and directed that the tract comprising the three survey numbers should be maintained as a sandal reserve. This was accordingly declared in Government Notification . . .

4. Mr. Kent now renews his application and expresses regret for not having availed himself of the concessions offered to him in 1898. He prays that they may be repeated, and that he may be permitted to take up the lands again under the same conditions as were formerly laid down. The Conservator of Forests, who has personally inspected the spot, is strongly of opinion that the tract in question is too valuable a sandal reserve to be given out for cultivation, and therefore objects to the grant. Government agree with him that, in consideration of the large number of valuable sandal trees already existing on the land, and the scope which exists for the improvement of their growth therein, it is undesirable to grant the lands for cultivation. They therefore regret that they cannot accede to Mr. Kent's request.

C. S. BALASUNDARAM IYER,

Offg. Secy. to Govt., Gen. & Rev. Depts.

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(INCORPORATED.)

Scientific Officer Scheme.

At a meeting of the South Mysore Planters' Association, held on the 18th November at Balehonnur, the following resolution was passed :—

“ Resolved that the Secretary of the U. P. A. S. I. be informed that this Association leaves the selection of a suitable officer in the hands of the executive of the U. P. A. S. I. That a subscription list will be circulated amongst members of the planting community, asking them what amount they are prepared to guarantee for 3 years, and the results communicated.”

A subscription list circulated in the room, resulted in Rs.315 per annum being guaranteed for 3 years.

Emigration to the Straits Settlements.

In Order No.865, Public, dated 18th November 1907, the Government of Madras observe :—

It has been brought to the notice of Government that printed circulars advertising the Straits Settlements as a field for labour for Indian coolies are displayed in Post Offices, Deputy Tahsildars' offices and other public buildings in many districts. The intention of Government in their various orders requesting Collectors and district officers to afford the emigration agent of the Straits Settlements Government in India such assistance as may be found possible, was that district officers should give the agent such help as lay in their power in obtaining food supplies or means of locomotion and such matters, and that no needless or improper obstacles should be placed in his way in procuring recruits. It is not the intention of Government that special official assistance should be given to any particular recruiting agency, or that emigration to any particular locality should be specially encouraged. The exhibition of posters in public offices is likely to be believed by ignorant person to indicate that the Government accord special approbation to emigration to the Straits Settlements, and complaints have been received that they are so regarded. The Postmaster-General, Madras and all Collectors will be requested to issue orders that circulars of the nature referred to should not be displayed in public buildings.

The Anti-Tax-Duty League.

Writing on the 22nd November 1907, the Secretary to the above League says :—

It will no doubt interest you to know that we opened our campaign with a poster display at Nuneaton last week, where Mr. Asquith spoke, and for this purpose we made use of one of last year's posters of which we have a few in hand, and which happened to be particularly appropriate to the occasion.

I am sending you a couple of copies of this poster in the hope that they may be of interest and may influence subscriptions, which we are sadly

in need of. We have also an entirely new series of posters in the hands of the printers, with which we intend to post London generally for 8 months previous to the next Budget, and I will also send you specimens of these when they are ready.

The specimen poster calls for no special comment.

Vijiam & Co.'s Tea Scheme.

Messrs. Vijiam & Co., of 76, Thumboo Chetty Street, Madras, wrote recently that they were starting regular travelling business from the 15th December, 1907. They request hearty support from the U. P. A. S. I. and District Planters' Associations.

Abyssinian Coffee.

All recipients of Abyssinian Seed, distributed some months ago by the Governments of Madras and Mysore are requested to kindly report to their respective District Associations the results of the sowing of such seed. The Madras Government expressed a desire for information of this kind, and it is advisable that it should be as complete as possible.

The Planters' Association of Malaya.

In a letter dated the 7th December the Secretary to the Planters' Association of Malaya, Kuala Lumpur, remarked :—

I beg to inform you that the United Planters' Association has been dissolved as from the 1st instant, and that this Association has taken its place and enlarged its scope, as constituted on the same day.

I would add that this Association is thoroughly representative of all Planting Interests throughout the Peninsula, consisting as it does of Delegates from the following Branch Associations :—

The Malaya Peninsula Agricultural Association, Penang.

The Perak Planters' Association, Ipoh.

The K. Selangor District Planters' Association, K. Selangor.

The Kapar " " " " Kapar.

The Klang " " " " Klang.

The K. Langat " " " " Jugra.

The Batu Tiga " " " " Batu Tiga.

The K. Lumpur " " " " K. Lumpur.

The Negri Sembilan Planters' Association, Seremban.

The Malacca Planters' Association, Malacca.

The Planters' Association of Johore, Johore Bahru.

Before long, a Planters' Association of Pahang, which I understand is in course of formation, will also join, thus making the representation of every district of British Malaya on this Council complete.

Trusting that our pleasant relations in the past may, if anything, be enhanced by the change, and assuring you of our hearty co-operation in any matter affecting our mutual interests.

Finances.

Dealing with a letter from the U. P. A. S. I., asking in accordance with a resolution passed (in Committee) at the last annual meeting of the Association, for release from the obligation to pay Rs.5,000 to any scheme that may be agreed upon as the result of deliberations regarding the appointment of a Scientific Officer, the Mysore Government have passed the following order, No. 3811 Agricultural, 59-07-2, dated Bangalore, 18th December, 1907 :—

A donation of Rs.5,000 was granted to the United Planters' Association of Southern India for representing the Mysore Coffee Industry at the Louisiana Purchase Exposition held at St. Louis in 1904. On a representation made by the Association that the amount was not utilized for the purpose, that the Association intended to use the same to start an Experimental Farm or undertake some other scheme beneficial to the Coffee Industry, and that it had been lodged in the late firm of Messrs. Arbuthnot & Co., the Association was informed that the money when

realised might be utilized for such purposes as may be decided on in the interests of planting industry.

It is now represented that in the circumstances of the insolvency of Messrs. Arbuthnot & Co., there is no likelihood of the amount being realized, and the Association request to be freed from the obligation above referred to.

Under the circumstances, Government are pleased to release the Association from the liability to spend the amount as originally agreed upon.

The hearty thanks of the Association for this very liberal concession have been tendered to the above Government.

Extradition from Ceylon.

In a letter dated the 23rd ultimo the Honorary Secretary, Wynaad Planters' Association, says:—

"At the last meeting of this Association I was asked to write you, asking the U. P. A. S. I. to take up the matter of Extradition from Ceylon in cases of Breach of Contract under Act I. of 1903.

Two cases have occurred lately in which extradition has been refused on the plea that it is at the discretion of the District Magistrate to issue or refuse an extradition warrant according to whether he considers the offence sufficiently grave or not.

The following extract is from the Report of the Ceylon Labour Commissioner for 1906, (see Year Book of Planters' Association, Ceylon).—
L. C. page 17:—

"One thing they must bear in mind is that bolting from Ceylon without notice does not constitute an offence in India, warrants must be taken out in Ceylon, and sent over with a constable, when I would get them served."

"Extradition for offence of Breach of Contract seems therefore practicable from India to Ceylon although we are refused it in the opposite case.

Since the matter was brought up at the meeting, I hear proceedings should be taken under the Fugitive Offenders Act not Extradition Act, but I have not a copy at present."

The Book of Proceedings, 1907.

ERRATA.

All recipients of the U. P. A. Book of Proceedings, 1907, are requested to note the following *errata*:—

page 44 line 11 from bottom, *read* "work lime" (not alum) "into the soil."

page 48 line 6, for "Mangalore-Hassan-Arsikere" *read* "Mysore-Hassan-Arsikere."

Labour for Assam.

A Press Note, dated Calcutta, the 10th December, 1907, states:—

The Government of India have received the orders of His Majesty's Secretary of State for India in regard to the action which should be taken on the recommendations made by the Assam Labour Enquiry Committee. A Resolution on the subject will be issued in due course. In the meantime, the Governments of Madras, Bengal and the United Provinces and the Honourable the Chief Commissioner of the Central Provinces have been requested to issue a Notification under Section 91 of the Assam Labour and Emigration Act, to give effect to the recommendations contained in paragraph 283 of the Committee's report in regard to recruitment by garden sardars. In accordance with the suggestions made by the Committee in paragraphs 247—250 of their report the Government of Eastern Bengal and Assam have also been instructed to take steps for the issue of a Notification under Section 221 of the Act withdrawing from the labour districts Sections 118—121 and 195—196, which provide for local labour contracts, and confer upon employers the right of arrest without warrant.

MEETINGS OF DISTRICT ASSOCIATIONS.

South Mysore Planters' Association.

Proceedings of a Special General Meeting of the South Mysore Planters' Association, held in Saklasapur on the 6th October, 1907.

PRESENT.—**MESSRS.** J. G. H. Crawford (President), Chaldicot, J. G. Hamilton, T. Hunt, W. L. Crawford, A. R. Park, F. Hamilton, C. K. Pittock, W. L. Scholfield and R. F. Lamb (Honorary Secretary.)

U. P. A. S. I.—As a full account of the proceedings of the Annual Meeting of the U. P. A. S. I. had been fully reported in the public press and elsewhere the delegates did not make any formal report, but the following matters of special interest were discussed.

Arsikere-Mangalore Railway.—Mr. W. L. Crawford reported what had been said at the U. P. A. S. I. meeting, and urged the Association strongly to carry the matter further as the time was so opportune for the construction of this most important line. After full discussion the following resolution proposed by Mr. J. G. Hamilton, and seconded by Mr. W. L. Scholfield, was unanimously carried:—

That a deputation be sent to H. E. the Governor of Madras to strongly urge the construction of the Arsikere-Mangalore Railway, and that the North Mysore Planters' Association be invited to co-operate.

Scientific Officer.—Mr. C. K. Pittock reported on what had transpired regarding the Scientific Officer Scheme, and the Honorary Secretary laid before the meeting the Madras Government's reply to the Secretary of the U. P. A. S. I. After the matter had been fully gone into it was agreed that, to tackle successfully the work required, the Scientific Officer should be primarily an Agricultural Chemist, and it was desirable that he should have specialised in Mycology. The meeting further resolved that this Association's subscription would be as previously decided.

Local Sales of Land.—Mr. A. R. Park reported on the irregularities that had taken place in connection with recent sales of land in the Hanbal Hobli, where the interests of neighbouring proprietors were wholly ignored. Survey No. 111 of the Devalkarc Grama, Hanbal Hobli, was given as a concrete case in point, and a letter from Mr. O. M. Playfair, endorsing Mr. Park's complaint, was laid on the table. The following resolution was proposed by Mr. Park, seconded by Mr. T. Hunt, and carried unanimously:—

That the Honorary Secretary be requested to apply to the Deputy Commissioner, Hassan, on behalf of Mr. R. H. Elliott for a full and searching enquiry as to recent sales of land in the Hanbal Hobli within the last few months, as rights of private individuals have been purposely ignored, and Government has been deprived of its just revenue.

Rubber Lands.—Mr. F. Hamilton called attention to the conditions the Government of Mysore sought to impose on all grants of land for the purpose of rubber cultivation, and after the matter had been discussed the Honorary Secretary was requested to write for a copy of the Rubber Lands Title Deeds.

Circulars, etc.—The Honorary Secretary laid on table various circulars from the Secretary, U. P. A. S. I., and the Forest Department of the Government of Mysore.

R. F. LAMB,
Honorary Secretary, S. M. P.A.

North Mysore Planters' Association.

Proceedings of a General Meeting, held at the Balehonnur Club, on the 18th November, 1907.

PRESENT.—Messrs. E. C. Bolton, C. Danvers, O. Scot-Skirving, H. G. Bonner, R. C. Foster, H. M. Northey, F. W. Hight, A. F. Evetts, E. W. Foulke, C. S. Crawford, R. W. Fremlin, C. H. Browne, (President), C. P. Reed, (Honorary Secretary).

The President, in opening the meeting, reviewed the position of the Association, and congratulated the members on its sound financial condition, and was able to report that 8 new estates had joined since last meeting, indicating, he considered, that Planters realised the necessity of unity. He eulogized the good work done by the *Planters' Chronicle*, which is sent gratis to all members, keeping them *au courant* with planting matters.

Mr. O. Scot-Skirving, the delegate to the U. P. A. S. I., reported the action he had taken with regard to the subjects which were of interest to this Association.

Proposed from the chair :

That a hearty vote of thanks be accorded to Mr. Scot-Skirving for so ably representing the Association, and for his instructive report. *Carried unanimously.*

Mr. C. Danvers, the delegate to the Mysore Representative Assembly, explained at length what he had done with reference to the "50 Yards Rules" and "Government Forest Policy."

Proposed from the chair :

That a cordial vote of thanks be accorded to Mr. C. Danvers for his most interesting report, and for the masterly way he had represented the interests of the Association. *Carried unanimously.*

50 Yards Rule.—Resolved that this Association regrets that Mr. Danvers at the Representative Assembly was unable to obtain the withdrawal of the 50 Yards Rule, but in view of the fact that the Government appear to be aware of the difficulties of the situation is hopeful that a *modus vivendi* may be found. That the Honorary Secretary be requested to invite the Conservator of Forests to meet the Members of this Association to discuss the position.

Scientific Officer.—Resolved that the Secretary of the U. P. A. S. I. be informed that this Association leaves the selection of a suitable officer in the hands of the executive of the U. P. A. S. I. That a subscription list will be circulated amongst members of the planting community, asking them what amount they are prepared to guarantee for 8 years, and the result communicated.

A subscription list, circulated in the room, resulted in Rs.315 per annum being guaranteed for three years.

Impoundage of Carts.—Resolved that this Association is not satisfied that justice was done in the Balehonnur riot case, but notes with satisfaction that the departmental enquiry held subsequently at the instance of the Deputy Commissioner resulted in the punishment of the petty officials implicated. Should similar cases arise in the future the executive shall at their discretion engage legal assistance to watch the case on behalf of the Association.

Bhoond Ghât.—Resolved that this Association is pleased to learn that steps are now being taken to put the Bhoond Ghât in efficient order; the condition of this Ghât during the past year was absolutely dangerous for traffic.

Ardur Bungalow.—Resolved that the Honorary Secretary write to the Deputy Commissioner, and represent the inconvenience caused to the public since the public bungalow at Ardur was demolished, and expressing a hope that the new building will be completed at an early date, and further to request that some furniture may be put in the new bungalow at Magoondy.

Resolved that the Honorary Secretary do write, and invite all planters in the district who are not members to join the Association.

Arnikere-Mangalore Railway.—Resolved that the Honorary Secretary write to the S. M. P. A., and assure them of the support of this Association.

A hearty vote of thanks to the President and Honorary Secretary brought the meeting to a close.

Wynaad Planters' Association.

Meeting of 11th December, 1907, at Meppadi Club.

PRESENT.—Messrs. C. E. Abbott, H. Atzenwiler, D. Mackenzie, W. Mackinlay, B. Malcolm, S. H. Powell, Jr., A. Trollope, H. B. Winterbotham and H. Waddington, (Honorary Secretary.)

Visitors.—Messrs. H. A. Beachcroft, J. B. Burnett and G. H. Welchman.

In the Chair.—Mr. C. E. Abbott.

Proceedings of last meeting were confirmed.

1813—*Sanitation.*—The Association note with satisfaction that the President of the Taluk Board has recommended the appointment of two sweepers at Meppadi, and trust that this will be carried out shortly.

1814—*Roads.*—Read letter from President of the District Board, with reference to increasing the width of tires on carts carrying heavy loads. The Association think that the limit of 2 candies in weight that should be carried in present type of country cart, is much too low, and that limit should be at least as high as one ton.

1815—*Recruiting and Emigration of Coolies.*—Read G. O. No. 865, Public, directing that no special facilities are to be given to any particular recruiting agency.

1816—*Attesting of Contracts under Act I. of 1903.*—Read letter from Honorary Secretary to Chief Secretary, Government, Fort St. George, asking that attesting Magistrates and authorities should keep record of Contracts executed before them. Approved.

1817—*Subscription to the W. P. A.*—Mr Waddington gave notice, that in view of the necessity of increasing financial support to the U. P. A. S. I., he would bring forward at next meeting, proposal to alter Rule VII. as follows:—

“The annual subscription, payable in advance, at or before the General Meeting, held each January, shall be Rs.12 to meet the expenses of the Association, plus a cess of 8 pies per acre under cultivation, to meet the subscription to the U. P. A. S. I. Non-payment before the end of March shall debar members from voting or addressing a meeting until the subscription is paid.”

1818—*Records*—The following members were appointed a sub-committee to go through the accumulated papers belonging to the Association, and destroy such as they considered unnecessary to keep longer:—

Messrs. H. Atzenwiler, A. Trollope and the Honorary Secretary.

1819—*Valuation of Timber.*—Read Proceedings, Collector of Malabar, dated 21st November, 1907, informing Association that basis on which the upset price will be calculated will be on consideration of the species and size of the trees, and the accessibility of the land from timber markets. If the upset price is not bid or no bid at all is made, the Forest Department will remove such timber as it requires within three months after sale. As little time as will suffice for valuation of timber, and adequate publication of sale, will elapse between receipt of application for land and sale of the timber thereon.

1819a—*The Madras Measure.*—Read letter from Collector of Malabar. The “para” measure does not seem a useful size for business in Wynaad. The Honorary Secretary was instructed to address the Collector.

1820—*Labour Law, Act I. of 1903.*—Read letters from Honorary Secretary to Chief Secretary, Government, Fort St. George, to the Secretary, U.P.A.S.I., to Hon'ble Mr Hodgson and to Mr. Brock, Honorary Secretary, Nilgiris Association, also replies from Messrs. Hodgson and Brock: The Honorary Secretary was instructed to write Mr. Hodgson.

1821—*Non-Service of Warrants.*—Read report on Mr. Hughes' case in the Coimbatore District. The Honorary Secretary will communicate with Mr. Hughes. Mr. Malcolm brought to notice that notwithstanding service of warrants in Mysore, warrants for breach of contract are non-serviceable in Cochin Territory. Honorary Secretary instructed to make enquiries into the matter.

1822—*New Members.*—Following members were proposed, and will be balloted for at next meeting. Mr. H. A. Beachcroft, proposed by H. Waddington, and seconded by C. E. Abbott. Mr. G. H. Welchman, proposed by H. Waddington, and seconded by Mr. D. Mackenzie. Mr. S. Robinson, proposed by B. Malcolm, and seconded by H. Waddington.

1823—*Extradition.*—The Honorary Secretary was instructed to address the U. P. A. S. I., with reference to two cases, where extradition from Ceylon had been refused, and to point out warrants issued for arrest of bolters from Ceylon are executed in India.

1824—*Telegraph Office.*—The Honorary Secretary was instructed to address Director-General of Telegraph Department, with reference to proposed closing of the Devala Telegraph Office, and to ask that it be transferred to Pundalur or Cherambadi.

1825—*Papers on the Table.*—U. P. A. S. I. Circls. Nos. 64 to 67.

I. T. A. Circls. 18 to 20.

I. T. A. Year Book 1903.

Year Book, P. A. Ceylon, 1906.

A vote of thanks to the Chair terminated the proceedings.

(Signed) C. E. ABBOTT.

Chairman.

(„) H. WADDINGTON,

Honorary Secretary.

Abyssinian Coffee.—Will members, who had seed of this for experiment, report to the Honorary Secretary, as Government wish to learn if it has been successful?

“Lagos silk rubber” (*Funtumia Elastica*) trees in the Budonga forest in Uganda are tapped every three months on different sides of the trunk. The average yield of latex at each tapping is about 1 quart per tree, with an annual average yield of about 1 lb. of pure rubber. A considerable quantity of *Funtumia* has been planted in the West Indies in the last two or three years. Rubber from this trees has realised almost as high prices as have been obtained for the best Pará rubber.

Parameria glandulifera, a climbing plant, is distributed through southern Burma, Indo-China, and the Malay Peninsula, and has long produced a yield of good rubber, which is exploited by native collectors. Samples of the latex and rubber of this plant have been forwarded to the Imperial Institute from Burma and the Andaman Islands, and the dry rubber was found to contain 91.8 and 91.6 per cent., respectively, of caoutchouc. In each case the percentages of resin and proteids are low, and the rubber is free from vegetable impurities.

The most notable feature of some analyses of soils and subsoils from cacao, cinchona, and tea plantations in Java is the high percentage of fertilising constituents in the (good) tea soil—9.56 per cent. of nitrogen, 0.16 per cent. of phosphoric acid, 0.24 per cent. of potash, and 0.63 per cent. of lime.

INDIAN TEA ASSOCIATION, Calcutta.

The following are extracts from an abstract of the proceedings of a meeting of the general committee, held at Calcutta on the 10th December, 1907.

Correspondence with the Indian Tea Association, (London).—Letters of 15th and 22nd November from the Secretary, Indian Tea Association, London, having been previously circulated, were brought up for final consideration and disposal. The principal subjects dealt with in these letters were as follows :—

(a) *Franco-British Exhibition.*—In his letter of the 15th November, Sir James Buckingham wrote that he had had a call from Mr. Rose, of the India Office, who had informed him that it had been definitely decided to have an Indian section at this Exhibition, entirely under the wing of Government, Mr. Rose acting as Secretary. The arrangement is that India will erect its own court, and the sum of £15,000 has been allotted, Sir James understands, to the section. A space of 20 000 square feet has been applied for at a rate of 2s. per square foot. The Government of India have been communicated with and also the various Indian Chambers of Commerce in India, giving the rules, &c., for exhibits; the latter have been invited to co-operate. The Indian Committee has been reorganised, with Sir William Lee Warner as Chairman.

(b) *Direct Shipments of Teas to Liverpool from Calcutta.*—Sir James Buckingham mentions in his letter of the 22nd November, that direct shipments of tea from Calcutta to Liverpool appear to be greatly on the increase, the chief factor being the Prohibitory Railway Rate of 37s. 6d. per ton from London to Liverpool.

Assistant Scientific Officer.—Dr. Hope, the new Assistant Scientific Officer, is expected to arrive in Calcutta on the 22nd or 23rd of December, and arrangements are being made for his having a meeting with the General Committee before he proceeds to Assam. Mr. Hutchinson has been asked to come to Calcutta at the same time.

Mosquito Blight in the Dooars.—In consequence of further correspondence on this matter, the General Committee decided in view of the importance of the blight to ask Mr. Antram, the Association's Entomologist, to visit again the gardens which were so badly affected this season and spend, say, 2 months in investigating thoroughly the habits and life history of the mosquito. Mr. Hutchinson has been requested to suggest to Mr. Antram any points that may occur to him requiring special study, and the Chairman of the Dooars Planters' Association has been informed of the action taken, with the request that he should advise as to what gardens Mr. Antram should first visit.

Presentation to Dr. Mann.—Before Dr. Mann left for Home on furlough in June last, he was presented by the General Committee with an illuminated address in a silver casket, subscriptions towards the testimonial having been received from all the different districts as well as from Calcutta. A considerable balance—amounting to Rs.1,600—remained over after defraying the cost of the address and casket, and it was arranged at the time that with this a piece of plate should be procured for presentation to Dr. Mann; the matter was, however, delayed as Dr. Mann was expected to be in Calcutta towards the end of the year. He is now expected here about the 28th of December, and it was agreed that he should be asked to indicate what kind of plate he would prefer.

Assam Branch.

Extracts from Minutes of the 18th Annual General Meeting, held at the Dibrugarh District Club, on the 12th November, 1907; Mr. William Skinner in the Chair.

The Legislative Councils.

EXTRACT FROM THE CHAIRMAN'S SPEECH.

Now as to the proposed enlargement of the Councils, you are aware that it is proposed to add considerably to the number of non-official members on

both the Imperial and Provincial Councils, and also to create Advisory Councils, so we ought, I think, to take advantage of the opportunity to press our claims to a further representation. You will recollect that at the time of the formation of the Council for this Province the reason given for the refusal to accede to our petition for at least one permanent representative, was that the number of non-official members could not be increased, and this object can now no longer exist.

The Tea Industry has besides especial claims to consideration. Not only is it, perhaps, the greatest industry in India, which is wholly carried on in the country, but its entire capital is irrevocably invested in this country.

Further the industry is a very great land-holder. But for tea the bulk of Assam and the Dooars would still probably be an unreclaimed wilderness, and even now the prosperity of a great part of Eastern Bengal and Assam is greatly dependent on it.

We may now therefore fairly ask to be granted two representatives on the Provincial Legislative Council, and also some share of representation on the Imperial Councils.

Representation in Council.

Considering the large landed interest, and the capital sunk in the industry, and the fact that its produce represents nearly 50% of the total export trade of the Province, we have the strongest claims to permanent representation on the Provincial Council.

At present we have to share representation with jute, which, though responsible for 40% of the total export trade, has not the same stake in the country, jute being an annual crop, and demanding little or no capital. Yet, hitherto, these two industries, representing 89% of the total export trade, have had to share a seat, while Municipalities, Local Boards, and nominated members, representing smaller interests, secure larger representation.

With the enlarged Councils and Advisory Councils we should press for adequate representation for our industry, and Government can hardly deny our claim to a permanent seat on the Provincial Council, and if possibly on the Advisory Council.

A discussion then arose, and a comparison was drawn between the importance of the Tea Industry as an investor of capital, and a landholder with that of jute; and the Meeting were clearly of opinion that to date the great interests of this industry had not been adequately represented, and it was decided to respectfully make a strong protest to Government, and ask for at least two permanent members on the Local Legislative Council, and adequate representation on the Imperial Legislative and Advisory Councils, in reply to the Local Government's letter No. 11587C of 10th October, 1907, to the address of the Secretary of the Association.

Scientific Officer.

The Chairman continued:—

I regret the absence of Mr. Hutchinson, who would I hoped, have given us some useful information, but we are fortunate in the presence of Mr. Antram, the Entomologist, who was kindly promised to give us a *resumé* of his investigations regarding the mosquito and other pests in their attacks on tea, and his remarks will, I know, be listened to with great interest.

Mr. C. B. Antram, the Entomologist to the Indian Tea Association then rose, and gave the following short summary of the work done in his Department, during the year 1907:—

MR. CHAIRMAN AND GENTLEMEN,

Investigations were made early in the season relative to the "Sandwich" caterpillar and "Looper," caterpillar pests in Cachar, and in the Jorehat district. Before methods of dealing with these two insects can be published further data will have to be obtained.

With regard to the Bark-eating Borer caterpillars of tea (serious pests in Cachar and Sylhet), investigations have been brought to a head, and a pamphlet

dealing with four different species, with 9 plates illustrating them, is now in the hands of the printers, and will be published immediately, to be in time for use during the coming pruning season. Work on this subject was commenced early in 1906, and completes about June of this year. The remedies recommended for dealing with these "Borers" are quite simple and effective—the insects can be eradicated from any garden in a short time.

Some considerable time has been spent in investigating white ants of two kinds, the mound-forming species, and the one attacking individual tea bushes living in small separate colonies. Experiments with Sisal waste, Lime and Sulphur, etc., have been carried out at Allynuggar in Sylhet, but it is too early yet to say of what benefit these experiments will be. Nests of the mound-forming termites can be destroyed by the patent "Ant exterminator," which can be got from South Africa for £5, including freight. This machine pumps fumes (generated from Sulphur and Arsenic) through the galleries, and has been found most effective in killing the ants that persistently come up through the floors and out of the walls of buildings. Unfortunately the machine is of no use against the white ants attacking individual tea bushes, as it is impossible to pass the fumes through the system of galleries.

In July last when reports began to come in from various districts of serious attacks by "Mosquito" further work on the subject was at once taken up, with a view to discovering some entirely new method of dealing with the pest. I shall arrange to spend some considerable time on this subject during the next season, but in the meantime I am experimenting with a new method which promises to turn out a success in that it is quite as effective as Kerosine Emulsion (if not more so), and at the same time much cheaper of application, besides having other advantages over the usual method of spraying. I would like to point out that some seven years have been spent by Dr. Mann in elaborating the present methods, and until a new one is discovered, spraying with Kerosine Emulsion and collecting by hand had better be made use of. I am of opinion, however, that the manner in which spraying with Kerosine Emulsion is generally carried out, is not altogether effectual in destroying the mosquitoes. A large number of the insects are never reached by the insecticide, as on first spraying a bush, many of them either fall to the ground or retire into the heart of the bush. It is necessary, therefore, if full benefit is to be obtained by spraying, to not only spray to the top and sides of the bushes, but to thoroughly saturate the stems and the "Jabra" at the foot of them, the nozzle of the sprayer should also be placed inside the bush, the spray being directed upwards.

At the present moment Mr. Manlik is endeavouring to ascertain at what strength Kerosine Emulsion and other insecticides will prevent the eggs of the mosquito when prayed upon from hatching out.

As the "Orange Beetle" is quite a serious pest in certain quarters, and the life-history of the insect is entirely unknown, investigations have been started and will be carried through next season.

In the Kanny Koory "Insectarium" the life histories of many of the minor insect pests of tea have been followed out, and duly filed.

Reverting again to the matter of the mosquito blight, I found on many gardens that the egg capsules of the Mantis insects were being collected and destroyed, they having been mistaken for the cocoons of certain insects which are entirely injurious to tea. The Praying Mantis insects are entirely insectivorous and highly voracious. I have watched them eating the Tea mosquito. As the Tea mosquito has very few natural parasites of any note, it would be well worth while preserving the mantis, and to collect their egg capsules from grass and jungle land for distribution over the tea area. The young of this family of insects are wingless, and would be unable to leave the tea until they had reached maturity.

I shall be happy to circulate to the various branches of the Indian Tea Association, boxes containing examples of this parasite and egg capsules, if I may do so.

Light Railways.

Mr. R. D. Davidson read the following memorandum :—

Mr. CHAIRMAN AND GENTLEMEN,

I ask your permission to say a few words on a subject which I feel sure is of deep interest to the whole community, and one in which I firmly believe the welfare and expansion of the industries of the whole Province are largely dependent. The subject to which I allude is that of Light Railroads. In a note by Mr. F. J. E. Spring, then Consulting Engineer to the Government of India for Railways, Assam, written as far back as July, 1896, he remarks:—"I have also taken the opportunity more than once. . . . of expressing my opinion the Province would be wise to inaugurate a definite Light Railway Policy. "He then goes on to discuss the probable cost of each Railway, and after comparison of figures then in his possession, comes to the conclusion that Rs.20,000 a mile is a safe figure to estimate, and goes on to say : "I undertake to say that under favourable circumstances, and with a well-thought-out programme of speedy and economical construction, and with good arrangements for continuity of expenditure, and of English supplies, Assam may provide herself with an admirable network of thoroughly sound, businesslike, 2 feet 6 inches gauge lines, on her existing roads, at from 18 to 20 thousand rupees per mile."

He then comes to the very important subject of the provision of funds for the construction of such lines and suggests a loan from the Imperial Government of Rs 20 lakhs, on the security of a 8% guarantee from the Provincial Government, which would provide funds for the construction of 100 miles of 2 feet 6 inches railway on existing roads. There is much more of interest in Mr Spring's note, which I recommend to the attention of all interested in the subject.

Mr. Spring's successor, writing in June of this year on the same subject, says:—"The remarks then made are as true to-day as they were 11 years ago. The only astonishing thing about it is that little or nothing has been done! It is astonishing that the development of the country has not been pushed forward by the construction of light railways, especially when Government can obtain ample proof of the financial success of several of their light railways with no risk, but certain profit to itself."

The quotations I have read to you, gentlemen, are, I consider, worthy of your serious consideration. It is, however, perfectly certain that unless our wishes in this connection are made known, and pushed forward, Government will not move in the matter; our silence probably leads to the idea that we are satisfied with the existing means of communication. It may, I think, be taken for granted that those interested in tea have not the capital themselves, or the influence to command it, for such undertakings; but with a Government guarantee, assured outside capital would be attracted, or failing that the Imperial Government loan should be urgently pressed for. I now beg leave to propose the following resolution :—

"That this Association in conjunction, (if approved of), with the London and Calcutta Tea Associations, and the Surma Valley Branch, lay before the Provincial Government a strong and forcible statement regarding the backwardness of the communication away from the existing railways in the Province, and urging the necessity for an early and careful consideration of the question, and the inauguration of a definite policy which will meet the urgent requirements of the Brahmaputra and Surma Valleys."

The meeting being unanimously of opinion that the question raised was one of the first importance, the resolution was unanimously carried.

Representation in Council.

The following are extracts from a letter, dated 9th October 1907, addressed by its Chairman to all Members of the Assam Branch of the I. T. A :—

Under a resolution of the Government of India published in the Local Government Gazette of the 11th September, 1907, referring to the proposed enlarge-

ment of Legislative Councils, it would seem to be an opportune time to again approach Government to secure permanent representation of the Tea Industry on the Council.

Under the present rule the Tea Industry is represented for 1 year, after which the jute industry succeeds for 1 year, then tea for 2 years, followed by jute for 1 year, but under the new resolution the Government of India state, "That the Legislative Councils in India should now be enlarged to the fullest extent compatible with the necessary authority of Government. The Viceroy desires, moreover, that these bodies should be so constituted in respect of non-official members as to give due and ample representation to the different classes and interests of the community."

In the resolution touching on the elective principle stress is laid on the disproportion between the classes elected as representatives: namely, that since the elective system was introduced in 1893, 36% of the seats have been held by lawyers and only 22% by land owners, and suggests as a counterpoise to this disproportion by making the additional electorate recruited from the landed and unioned classes.

Taking into consideration that the tea industry in the new Province represents the largest landed interests, the holding amounting to 475,047 acres, representing a capital of upwards of £12,000,000, while it is responsible for 49% of the total export trade of the Province, amounting in value to 155.79 lakhs; there seems to be an irresistible claim to permanent representation on the Provincial Council which the Government was unable to satisfy before with the many other bodies claiming some representation, but which under the late resolution can be and should be remedied.

Ceylon Import Duty on Tea.

As you are aware, a letter signed by every District Tea Association in India, with reference to this protective duty, has been forwarded to the Indian Tea Association, Calcutta, who have sent it on with a covering letter to the Government of India, requesting that the matter may be referred by it to the Secretary of State.

The *Ceylon Independent*, in commenting on the letter, says:—"It is a forcible document. It is impossible not to concede that the signatories make out a very strong case for favourable consideration. We do not think there is anything like the same opposition to the abolition of the duty as existed a dozen years ago. Circumstances have changed, the Colombo market has grown in importance and value, there is scope for a still larger volume of business. The time has come when the matter might well be reconsidered, and a barrier to complete harmony with India removed."

Scientific Officer.

In May last Dr. Mann, who has occupied the position of Scientific Officer during the past seven years, with credit to himself and to the great advantage of the Tea Industry, tendered his resignation on his appointment by the Secretary of State as Principal of the Poopa Agricultural College.

His work during that period has embraced many subjects, and to each he has brought to bear sound, practical and scientific work of a high order, marked by a thoroughness of detail which has been of great usefulness to our knowledge of the tea plant and the chemistry of manufacture.

We would, while thanking him for his great services to the industry, offer him our heartiest congratulations on his new appointment, in which we wish him every success.

At the same time we cordially welcome his successor, Mr. C. M. Hutchinson, as being in every sense fully qualified to carry on the work, and can assure him of the fullest measure of our support and assistance.

PLANTERS' ASSOCIATION OF MALAYA.**MEETING IN KUALA LUMPUR.**

After the proceedings in connection with the winding up of the United Planters' Association at the Masonic Hall, on Sunday morning, December 1st, were concluded, a meeting of the newly-formed Planters' Association of Malaya was held.

Mr. HARRISON was voted to the chair; and he proposed that the Planters Association of Malaya be now constituted.

Mr. C. E. S. BAXENDALE seconded; and the resolution was agreed to unanimously.

The meeting then proceeded to discuss the rules *seriatim*.

On the election of a permanent Chairman and Secretary being reached, the result was declared.

Mr. HARRISON, *Chairman*.

Mr. H. C. E. ZACHARIAS, *Secretary*.

Mr. HARRISON thanked the meeting most sincerely for electing him to occupy the first chair of the Planters' Association of Malaya, and said he should have great pleasure in acting till the general meeting in April. To be the first chairman of what he hoped would be the most powerful planting body in existence was an honour he had not expected, and he felt confident that they might have appointed others who would have filled the post better than he could. He should, however, do all in his power to further the interests of planting in Malaya. When the meeting came in April he did not propose to stand again, and, for this short time he hoped to meet with their approval. He further said that he entered on his duties with the greater confidence because Mr. Zacharias was Secretary. Mr. Zacharias' ability would greatly relieve him of his important responsibilities. In conclusion he said they must now go into the question of finance to carry them on until April, and he proposed that the salary of the Secretary should remain the same as when he was under the United Planters' Association, at all events till April.

FINANCIAL CONSIDERATIONS.

Mr. ZACHARIAS stated that printing and stationery came to \$1,000, the Secretary's salary \$2,400, incidental expenses \$600. Allowing \$1,000 more for any unforeseen or extraordinary expenditure, the total amounted to \$5,000. This should be ample, not only to pay all expenses but also to create a Reserve Fund. The expenses till April would be roughly \$1,700.

Upon the Chairman formally proposing, that the Secretary's salary should be \$200 a month. Mr. Duncan expressed the view that \$200 was a good deal. The motion was, however, carried unanimously.

The Chairman next said that, basing the amount of subscription at \$35 each for 50 delegates would give them \$1,750.

After a short debate, the proposition that, till April, the subscription should be fixed at \$35 was agreed to.

LABOUR QUESTIONS.**THE TAMIL IMMIGRATION FUND.**

The Secretary then read an extract from the minutes of the last meeting of the United Planters' Association in which it was suggested that the question of new rules under the Immigration Fund Bill should be raised at the first meeting of the Planters' Association of Malaya.

Mr. GIBSON proposed a resolution to the effect that the Planters' Association of Malaya ask the Government to hold their hand in legislation till the Association has had an opportunity of discussing the matter fully.

After some further discussion, in the course of which Mr. MacFadyen asked the Secretary to point out to the Government that this Association was the proper body to deal with the matter, and not the Immigration Committee, the resolution was seconded by the Chairman, and unanimously agreed to.

SUNDAY NAMES.—EFFORTS TO REDUCE FIRST COST.

The question of Sunday names being brought up for discussion, the Chairman said that the matter of coolies' pay was occupying the attention of Ceylon planters as well as of people in Malaya. In Ceylon it was proposed to increase the pay, and here it was proposed to reduce it. A cooly working here got his \$2.10, which was equal to about 4/10d.; in Ceylon a cooly only got about 2/8d. for every six days' work. If they were to knock off Sunday names, and if, at the same time, the pay in Ceylon was raised, the cooly's pay in Malaya would still be higher.

Mr. HARVEY said that according to the new rule free passages were going to be given, and therefore, other inducements would be superfluous. "The initial expenses of planting were greater than had been expected, and now there would be the necessity of opening two new headings under expenditure, namely the poll-tax and hospitals. This was a serious matter with increasing rates and a falling market. If, however, Sunday names were taken off they would be where they were before. They had no wish to rob the cooly, but he ought to work for his Sunday name, if he wanted it. He had spoken to his men on the subject, and they had told him that, taking into consideration the new hospitals and the free immigration, they did not want Sunday names. In conclusion he thought that their action should be unanimous, and that the matter should be embodied in the rules.

Mr. DARBY supported the motion, and said he had but little to add to Mr. Harvey's speech. Expenditure must be kept down, and a start must be made; but he was afraid there might be some difficulty over men already here, because they had no free passage. He thought copies of the resolution ought to go to other Associations, and the Government must be written to, for if the Government went on paying Sunday names, their action would be useless. He also thought that the hours of working should be increased, and the Government approached on this subject as well.

Mr. DUNCAN agreed with the previous speakers, but doubted the Association's power to effect much.

THE NEED FOR ECONOMY.

Mr. GIBSON, speaking in support of the motion, agreed with what Mr. Darby had said about the pressing need for reducing expenditure. Agriculture in the tropics was open to so many vicissitudes that they should lose no opportunity of effecting economies. While wages were higher in Malaya than elsewhere, the opening up of new ground was more expensive than in Ceylon, where, taking the rupee as about equal to the dollar, there was an advantage of nearly 25 per cent. If rubber fell much lower, the situation would be serious, for already the outcry at Home against expenditure was extreme. Mr. Gibson also held that Sunday names were not mentioned in the contracts.

Mr. BAKENDALE held that there was a difficulty in getting labour (personally he had not experienced it), and that that difficulty would not be made less by laying down a hard and fast rule, because conditions of work and expenditure differed so much in different places.

Finally, Mr. MACFADYEN proposed, and Mr. LAUDER WATSON seconded, that the matter be referred to the District Associations and the Government first, and that it should then come up before a meeting to be held in the middle of January.

The resolution was carried without dissent.

DATE OF NEXT MEETING.

Several other places, including Penang and Ipoh, having been suggested, it was decided to hold the next meeting in Kuala Lumpur, at the Masonic Hall, on January 19th.

TEA.

Ceylon Tea on the Continent.

In its issue of 10th December, 1907, the *Times of Ceylon* says:—

Recently the reports as to the progress of Ceylon tea on the Continent of Europe have been on the pessimistic side, except as regards Russia, being based chiefly on the Ceylon export returns, which show a considerable decrease. It is, therefore, particularly gratifying to hear that, in the opinion of one who knows the trade so well as Mr. G. A. Marinitsch, of the well-known firm of G. A. Marinitsch & Co., who has just returned from Europe, Ceylon tea, instead of declining, is rapidly going ahead. Mr. Marinitsch arrived by the Austrian Lloyd *Gisela* this morning, looking very well after his long residence in Vienna.

"Ceylon tea," he said, "is making great progress in Austria and all over the Continent. There is not the least doubt about that. We have been handicapped by the recent extraordinary rise in prices, which came so suddenly that the trade was not prepared for it. Taking the prices of 1906, you will see that there has been a rise of fifty per cent. in a very short space of time, and this made people look round for markets, where Ceylon tea could be bought cheapest. They found one in London, where there are always such tremendous varieties of tea. That is the reason our direct exports to Austria are one-third less than those of the previous year. I want to make it clear that this does not mean that Ceylon has had a set-back, but that dealers went to London, where, as you know, they can frequently get tea cheaper than in Colombo."

PROGRESS IN VIENNA.

"You think that accounts for the increased re-shipments from London?"

"Yes. At present there is not a single dealer in Vienna who does not sell Ceylon tea, and, what is more important still, who does not push it. The latest accession is that of one of the largest Russian firms in the tea trade in Vienna and one of the oldest—Wasali Perloff. This firm has for years sniffed at Ceylon tea, trying its best to keep it out, but this year it has put an enormous board up containing the words "Ceylon tea is sold here" in big black letters on a white ground. This is a clear proof that Ceylon tea is asked for, and that they have been forced to stock it. People now know the tea, and in a few years it will be able to fight its own way without any help; but the assistance should not be withdrawn too suddenly. Mr. Rentou has done grand work for Ceylon tea on the Continent. He has the advantage of being a linguist, and being able to speak to the dealers, and I have heard many people speak of the painstaking and pleasant way in which he interviews them."

HIGH PRICES WILL NOT STOP PROGRESS.

"You do not think permanent high prices will retard the progress of Ceylon tea on the Continent?"

"I do not. My view is that the high prices will improve the business rather than damage it. When prices were so very low they damaged the tea business because they gave people the impression that tea was an article of no value, when the trade were able to buy it at four-pence a lb. in London. High prices, except in so far as, as I have explained, the sudden change affected business, do not lead to bad trade on the Continent."

"Do you hear anything about rubber?"

"Well some people came to me and asked me whether I could supply them with any. Seeing the name Ceylon so prominently displayed everywhere in my place, merchants and brokers asked me whether I could sell them Ceylon rubber, which shows that it is becoming known."

OFFICIAL PAPERS.

Coorg.

The following extracts are taken from the report on the administration of Coorg, 1906-07 :—

Cardamoms

The area cultivated with cardamoms, *viz.*, 1,507 acres, is made up of (a) jama malés (382 acres), (b) leased malés (551 acres), (c) coffee assessed malés (574 acres); the aggregate holdings under these heads being respectively 12,293 acres, 26,815 acres and 9,263 acres. The increase under (a) is due to a resurvey recently completed. The figure under (b) is roughly calculated at 15 acres of cultivation to every thousand leased.

Coffee—Rubber.

Area under Crops.—The total area cropped during the year was 141,083 acres against 140,190 acres in 1905-06. Including second crop cultivation the area under rice—79,617 acres was 445 acres more than that of the previous year. The percentage of cultivated area to gross holdings (96,281 acres) was 82.69. The total area of dry holdings was 20,651 acres, the extent actually cropped being 10,089 acres, against 8,833 acres in 1905-06. The increase is mainly due to ragi and other crops having been sown on banés formerly covered with lantana which were cleared during the year. The extent actually cultivated with coffee fell from 48,215 to 46,398 acres: this is due to the gradual abandonment of old estates and worthless cultivation. The total extent held under the coffee tenure was 98,907 acres, which includes (a) 9,263 acres of coffee assessed cardamom malés, (b) 1,800 acres of orange gardens, (c) 41,451 acres of abandoned coffee, or land granted for coffee and not opened up, and (d) 1,285 acres of immature coffee. It is hoped that the resettlement will cause these anomalous classifications (a), (b) and (c) to disappear. There is thus a net area of 45,108 acres of coffee under bearing, of which 40,598 acres are cultivated in the European, and 4,510 acres in the Native method. Rubber, chiefly Ceará, although still in an experimental stage has been planted on 1,221 acres of abandoned coffee, and on a certain amount of other land which is not yet accurately ascertainable. Reductions of assessment amounting to Rs.1,091 were sanctioned in respect of 1,188 acres of coffee land during the year: this consisted entirely of land on which the cultivation of coffee has been completely abandoned.

Rates of Rent and Produce.—The rice and ragi crops were rather above normal, while the coffee crops was excessively bad. The local price of coffee was poor, but in the western markets a very marked improvement was experienced. The estimated coffee turnout was 1,663 tons against 4,100 tons in the previous year.

Although statistics show that the area actually under coffee has decreased, they also show a much larger (1,285 acres against 558 acres) area of immature coffee, which points to considerable planting. It may safely be assumed that the value of the new cultivation is proportionately much greater than the value of that which has been given up: coffee cultivated in the wrong locality and under unsuitable circumstances is being steadily eliminated, but that which takes its place has a wealth of experience behind it, and is likely to hold its own if it has been planted on suitable land.

The revenue realized from cardamoms was Rs.11,747, against Rs.11,356.

Oranges—Pepper.

The area shown under orchards and garden produce consists of 281 acres of arecanut and cocoanut, and 4,116 acres orange groves. The latter figure, which includes the 1,800 acres referred to in paragraph 108 *supra*, is 565 acres more than that of the previous year. The cultivation of pepper is gradually replacing coffee in abandoned areas, and has not yet been separately assessed: this will be done at the resettlement.

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